

COMBINED TRANSMITTAL OF APPEAL BRIEF TO THE BOARD OF PATENT APPEALS AND INTERFERENCES & PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. 1.136(a) (Small Entity)

Docket No.  
97-561

In Re Application Of:

ANDREW S. VAN LUCHENE

Serial No.

09/045,518

Filing Date

March 20, 1998

Examiner

James W. Myhre

Group/Art Unit

Invention:

METHOD AND APPARATUS FOR PROCESSING A SUPPLEMENTARY PRODUCT SALE AT A POINT-OF-SALE TERMINAL

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

This is a combined Transmittal of Appeal Brief to the Board of Patent Appeals and Interferences and petition under the provisions of 37 CFR 1.136(a) to extend the period for filing an Appeal Brief.

Applicant(s) hereby request(s) an extension of time of (check desired time period):

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from: December 10, 2002

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until:

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97-561

Serial No.

09/045,518

Filing Date

March 20, 1998

Examiner

James W. Myhre

Group Art Unit

2162

Invention:

**METHOD AND APPARATUS FOR PROCESSING A SUPPLEMENTARY PRODUCT SALE AT A POINT-OF-SALE TERMINAL**



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Docket No.  
97-561

In Re Application Of:

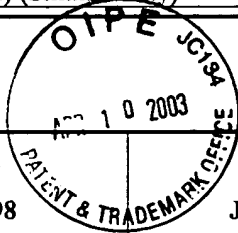
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Serial No.  
09/045,518

Filing Date  
March 20, 1998

Examiner  
James W. Myhre

Group Art Unit  
2162



Invention:

METHOD AND APPARATUS FOR PROCESSING A SUPPLEMENTARY PRODUCT SALE AT A POINT-OF-SALE  
TERMINAL

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

This combined Transmittal of Appeal Brief to the Board of Patent Appeals and Interferences and petition for extension of time under 37 CFR 1.136(a) is respectfully submitted by the undersigned:

Signature

Dated: April 10, 2003

Dean P. Alderucci  
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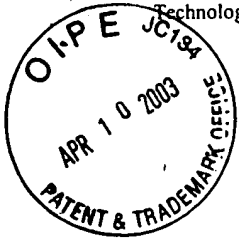
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Andrew S. Van Luchene

Application No.: 09/045,518

Filed: March 20, 1998

For: METHOD AND APPARATUS FOR  
PROCESSING A  
SUPPLEMENTARY PRODUCT  
SALE AT A POINT-OF-SALE  
TERMINAL

)  
) Group Art Unit: 2162  
)  
) Examiner: J. Myhre  
)  
) **APPEAL BRIEF**  
)  
) Attorney Docket No. 97-561  
)  
) Customer No. 22927  
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#24/appeal  
to  
Board Appeal  
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Interferences  
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Dear Examiner:

Appellants hereby appeal to the Board of Patent Appeals and Interferences from  
the decision of the Examiner in the Fourth and Final Office Action mailed April 5, 2002 (Paper  
No. 20), rejecting claims 1 - 31.

04/14/2003 RWONDAF1 00000112 500271 09045518

01 FC:2402 160.00 CH *OK*

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## REAL PARTY IN INTEREST

The present application is assigned to Walker Digital, LLC, 1177 High Ridge Road, Stamford, CT 06905.

## RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known to Appellants, Appellants' legal representative, or assignee which will directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

## STATUS OF CLAIMS

Claims 1 - 31 are pending in the present application and are being appealed.

Claims 1 - 24 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1 - 31 stand rejected under 35 USC § 103(a) as being unpatentable over a combination of:

- U.S. Patent No. 5,869,826 to Eleftheriou; and
- "No Place for Penny?", USA Today, July 29, 1994, by Phillip Fiorini ("Fiorini");

and (possibly though the Examiner did not clearly indicate) additional factual assertions contained in

- February 22, 2001 Affidavit of Patent Examiner James W. Myhre ("Examiner's Affidavit").

## STATUS OF AMENDMENTS

No amendments were filed subsequent to final rejection.

## FILE HISTORY

| <u>Document</u>            | <u>Date Mailed</u> | <u>Paper No.</u> |
|----------------------------|--------------------|------------------|
| "First Office Action"      | June 6, 2000       | 7                |
| "First Interview Summary"  | November 14, 2000  | 8                |
| "First Response"           | December 6, 2000   |                  |
| "Second Office Action"     | February 13, 2001  | 12               |
| "Second Response"          | May 14, 2001       | 13               |
| "Third Office Action"      | July 2, 2001       | 14               |
| "Third Response"           | January 2, 2002    | 15               |
| "Second Interview Summary" | February 12, 2002  | 16               |
| "Fourth Office Action"     | April 5, 2002      | 20               |

## SUMMARY OF INVENTION

Generally, according to one aspect of the invention, a rounding code of a plurality of different rounding codes is received, e.g., by a POS terminal. Present Application, page 4, lines 7 – 8. In one embodiment, the POS terminal receives the rounding code by scanning a bar code printed on an adhesive label that is affixed to, e.g., an item. Present Application, page 4, lines 6 – 8. A purchase price is rounded based on the rounding code. Present Application, page 4, lines 10 – 11.

In one embodiment explained with reference to page 4, lines 4 – 16, for example, a customer who intends to purchase items totaling \$8.26 selects those items and also selects an upsell to purchase as well. A bar code is printed on an adhesive label that is affixed to the upsell. A rounding code that is determinable from the bar code indicates a multiple of \$5, so the purchase price of \$8.26 is rounded up to the next-higher multiple of \$5 (i.e., \$10.00). The customer pays \$10.00 for the items and the upsell, effectively paying \$1.74 (\$10.00 - \$8.26) for the upsell she selected.

## ISSUES

Whether claims 1 - 24 are unpatentable for being directed to non-statutory subject matter.

Whether claims 1 - 31 are unpatentable under 35 USC § 103(a) as being unpatentable over a combination of Eleftheriou, Fiorini and possibly the assertions of the Examiner's Affidavit and Other Subject Matter Without Support in the Record.

## GROUPING OF CLAIMS

The claims in different groups do not stand and fall together.

Appellants group the pending claims as follows:

- Group I - claim 1;
- Group II – claim 2;
- Group III -claims 3 and 5;
- Group IV -claims 4 and 6;
- Group V - claims 7 - 15;
- Group VI - claims 16 - 24;
- Group VII - claims 25 - 27;
- Group VIII - claims 28 and 30;
- Group IX - claim 29;
- Group X - claim 31.

Appellants believe that claims in different groups are separately patentable, as explained in the following section.

## ARGUMENT

As explained below, the Examiner's rejection of the claims is improper at least because the Examiner has failed to set forth the required prima facie case of unpatentability of any claim.

The Examiner has not applied the correct legal standard in rejecting the claims as directed to non-statutory subject matter.

The Examiner has not shown all limitations of any claim to be disclosed or suggested by the references of record.

Various rejections are based on improper combinations and modifications of the references without adequate motivation in the prior art for making the proposed combinations and modifications.

The cited references, alone or in any combination, cannot be interpreted in a manner that would disclose or suggest all the limitations of any pending claim.

Finally, rejecting the claims on the basis of certain subject matter would constitute a rejection that was not based on substantial evidence in the record.

Accordingly, the rejections are inappropriate and Appellants respectfully request that the Examiner's rejections be reversed.

In the arguments herein, limitations of the claims are indicated in *italics*, and the references of record are indicated by underlining.

In separate arguments of patentability of different Groups, Appellants have, where possible, avoided undue redundancy by referring to prior arguments.

## The References

The Examiner has relied on a combination of several references in the rejection of all claims. However, none of the references cited by the Examiner, either alone or in combination, disclose or suggest all of the limitations of any claim.

Discussed immediately below are the references used in rejecting the claims: Eleftheriou, Fiorini, and possibly (though not clearly) Examiner's Affidavit and other subject matter without support in the record.

### **The Eleftheriou patent**

In summary, Eleftheriou discloses a system in which a magnetic stripe data card 202 (also called a "change card")

"is used as a substitute for coins. More specifically, instead of carrying coins, a cardholder carries a change card 202 having a stored dollar value amount encoded on it. The cardholder conveniently uses the change card 202 for the purchase of goods and/or services in the place of coins such that the change card 202 is valued and devalued according to the transaction."

Col. 5, lines 16 - 23.

A stated advantage of the system of Eleftheriou "is that it obviates the need to provide change during a transaction process, thereby eliminating the subsequent handling (receiving, transferring, sorting, counting, storing, and delivering) of coins". Col. 3, lines 7 - 11.

In general, the balance of change card behaves as if it were an actual container of coins. The fractional value of the total cost of a transaction determines whether the customer pays 'with coins' from the change card, or cannot. If the total cost is, for example, \$2.55, then the fractional value thereof is \$0.55. Col. 3, lines 46 - 50. If the customer, in paying this total cost, has a change balance ('coins in his container') of at least \$0.55, then \$0.55 in 'coins' from his change balance are used, along with a whole dollar cash amount to cover the remainder (i.e. \$2.00). Col. 2, line 64 - Col. 3, line 4. That is, the balance on the change card is reduced by the \$0.55 in 'coins' used to pay.

If, on the other hand, the customer has a smaller change balance ('coins in his container') that is insufficient to pay the \$0.55, then the customer must pay the next whole dollar amount (i.e. \$3.00), and the change due (\$0.45) to the customer is 'put onto' the change card by increasing the change card balance by \$0.45, just as one would place change received from the cashier into one's coin container. Col. 2, lines 59 - 64.

A reading of Eleftheriou unambiguously describes that the rounding in Eleftheriou effects the apportionment among types of funds a customer uses (cash and change card). However, the rounding does not affect the amount the customer is to pay for what she purchases (i.e., it does not effect not the purchase price).

An example elucidates this fact. If in Eleftheriou a total cost was \$2.55, but the change balance on the change card was only \$0.10 (i.e., insufficient to pay the \$0.55 fraction of the total cost), then the total cost would be ‘rounded up’ to \$3.00, so that the new total cost is \$3.00. The customer pays the \$3.00 (i.e. \$0.45 above the purchase price) in cash, and the change balance on the change card is increased with a renewal amount equal to the \$0.45 overpayment (i.e., 1 – 0.55, which is 0.45). Thus, the change balance on the change card is increased by \$0.45 from \$0.10 to \$0.55.

Clearly, then, this example transaction has resulted in the customer tendering \$3.00 (in cash) and receiving \$0.45 (in change balance on the change card). In other words, the customer has paid \$2.55, just as a customer who pays \$3.00 in bills and receives back \$0.45 in coins has also paid \$2.55. Thus, the change card truly “is used as a substitute for coins” (Col. 5, lines 16 – 17) because the customer and merchant behave as they would if they customer instead had bills and only \$0.10 in coins (e.g. a dime). Such a customer would also have to tender \$3.00 in bills and receive \$0.45 in coins back, resulting in a pocketful of \$0.55 in coins.

### **The Fiorini publication**

In summary, Fiorini discloses that the penny is a coin that is disfavored by many merchants and customers, who are willing to even forgo receiving this low-value coin.

For example, “[a]n entire industry has sprung up making little cups for retailers to put next to cash registers to take unwanted pennies from some consumers and provide them to others.” Fiorini, page 1, paragraph 8. “Automakers no longer provide a place for pennies in the coin-holders they put in cars and trucks.” Fiorini, page 1, paragraph 9. “[H]andling pennies costs thousands of hours in labor for counting, rolling and banking them.” Fiorini, page 1, paragraph 11. Walgreens estimates that “not having to count pennies would save its 1,900 stores at least \$300,000.” Fiorini, page 1, paragraph 11. Pennies also are not used in, e.g., parking meters, pay phones, vending machines and toll booths. Fiorini, page 2, paragraphs 1 - 3.

In addition, customers are so adverse to pennies that “Kroger and Winn-Dixie supermarkets offer to round purchases up and donate the difference to charities.” Fiorini, page 1, paragraph 10. Winn-Dixie had raised \$500,000 for charity through customers donating excess change, since “people don’t mind giving a few pennies or more”. Fiorini, page 2, paragraphs 15 - 16. Similarly, one Christie’s Cafe and Bakery in Richmond, VA “rounds up or down to avoid taking pennies”. Fiorini, page 2, paragraph 10.

### **Examiner’s Affidavit**

The Examiner has provided an affidavit dated February 22, 2001. The Examiner’s Affidavit includes the following assertions:

- During the Examiner's boyhood in Churchs Ferry, North Dakota, between May 1958 and May 1968, the Examiner and other unnamed individuals patronized a local grocery store.
- At this grocery store, in a purchase in which a student bought a 7 cent soda pop and paid by tendering a dime, the owner of this grocery store offered one or more additional items in place of the change due.
- Sometimes the owner would let the student pick out penny candy in an amount equal to the change due.
- In 1968 the Examiner graduated from high school and moved out of North Dakota.
- The owner is deceased and thus is not able to verify any of the above.

None of the subject matter asserted as true in the Examiner’s Affidavit is supported or corroborated by any other evidence of record.

### **Other Subject Matter Without Support in the Record**

Rejections of various claims were apparently based in part on numerous unsupported assertions of what was “well known” before the time of Appellants’ invention. These assertions are apparently offered as the Examiner’s belief as to what was well known in the U.S. prior to the date of invention by Appellant, and not offered as the Examiner’s interpretation of any reference of record.

In response to the apparent use of these assertions as the basis for rejection of claims, Appellants requested references to support all the assertions that did not already have support in the references of record. See page 6 of the First Response; page 9 of the Second Response.

The Examiner provided Eleftheriou and the Examiner's Affidavit as support for some (but not all) of the assertions.

The assertions which remain unsupported in the Fourth (and Final) Office Action, and which might have been considered by the Examiner to be a basis for rejection under Section 103(a), are:

- “[I]f, when I purchased a soft drink (15 cents) and a chocolate bar (7 cents) for a total of 22 cents, I only had a quarter (25 cents), the grocer would offer one or more supplemental products (normally candy) in lieu of the 3 cents change due.” Fourth Office Action, page 4, last paragraph.
- “Many retail establishments offer the customer sticks of gum, etc. in order to round off the purchase price and to eliminate the need to handle small change.” Fourth Office Action, page 4, last paragraph.
- “[I]t is common when purchasing large [priced] items, such as automobiles and houses, to round off the final purchase price to the nearest \$10, \$20, \$100, or even \$1000.” Fourth Office Action, page 4, last paragraph.
- “Official Notice is taken that it is old and well known within the retail arts to set a fixed price for each product, supplemental or otherwise, and to associate the fixed price and rounding code (multiplier). In support of the Official Notice, the Examiner notes that Eleftheriou discloses that the salesperson enters the total dollar cost of the goods (col. 7, lines 12 – 14); thus inferring that a fixed price is associated with each of the goods.” Fourth Office Action, page 5, last paragraph.

## **1. Group I**

Group I includes independent claim 1.

As discussed below, the rejection of the claims of Group I is flawed because the Examiner has not made a prima facie case of unpatentability of any claim of Group I. The Examiner has not applied the correct legal standard in rejecting the claims as directed to non-statutory subject matter. The Examiner has not shown all limitations of any claim to be disclosed or suggested by the references. The rejection is also based on improper combinations and modifications of the references without adequate motivation in the prior art for making the proposed combinations and modifications.

Further, no claim of Group I can be deemed obvious in light of the references of record, alone or in any combination, because the cited references, alone or in any combination, cannot be interpreted in a manner that would disclose or suggest the limitations of any pending claim. Further, the prior art of record does not contain any proper motivation to combine or modify the references in any way which renders any claim of Group I obvious.

### **1.1. Independent Claim 1**

Independent claim 1 is directed to a method in which a rounding code of a plurality of different rounding codes is received. A purchase price is rounded based on the rounding code.

### **1.2. Advantages of Independent Claim 1**

The embodiment of claim 1 provides several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

As discussed in the present application and its parent applications incorporated by reference therein, rounding a purchase price may be done to accomplish many goals not suggested by the prior art, such as providing a customer an offer for an upsell in exchange for the customer paying a rounded price (e.g. only rounded to the next higher dollar). Present

*Group I*

Application, page 2, line 19 – page 3, line 2. The price of the upsell is the difference between the purchase price and the rounded purchase price.

In the prior art cited by the Examiner, the same purchase price (e.g. \$8.25) would always be rounded in the same way (e.g. to \$10.00). In independent claim 1, however, a purchase price is not always rounded in the same way (e.g. always to the nearest \$5). Instead, a purchase price is rounded based on something received, and thus different purchase prices at different times may be rounded as differently as desirable. For example, two consecutive purchases by different customers, each having a purchase price of \$8.25, could be rounded differently (e.g. to \$10 and \$20 respectively) because, e.g. different rounding codes were received in the two purchases. Such a system is much more flexible and thus more advantageous because the same system may be adapted to meet a wide variety of business goals.

For example, in one embodiment the customer may be allowed to choose her own upsell (Present Application, page 5, lines 16 - 17), and that upsell may have a bar code which, when scanned, provides a rounding code. Present Application, page 4, lines 4 – 10. Thus, by providing the rounding code the customer herself chooses how the purchase price is rounded. Such customer-specified deals are typically much more acceptable than offers created without input from the customer.

As another example, a merchant may round in changing ways based on business goals which change in real-time. For example, if there is a surplus of a perishable product (e.g. hot apple pie) which must be sold more aggressively, then it can be desirable to change the way in which rounding is performed so that prices are rounded to the nearest quarter in exchange for the apple pie. This would make the price of an apple pie upsell attractively low, and thus spur sales of apple pies.

As another example, it may be desirable to periodically switch the average amount of increase in rounded purchase prices (e.g. alternate between rounding up to the next \$10 and the next \$5). This may be desirable when, e.g. experimenting with a new product to offer as an upsell, and a target price must be determined through experimentation.

As another example, certain “preferred customers” may be given a magnetic stripe card which permits only those customers’ purchase prices to be rounded in a certain way (e.g. rounded down).

*Group I*

A great many more advantageous and diverse uses of the claimed invention are possible, and would be apparent to those of skill in the art based on the Appellant's disclosure.

### 1.3. The Claims of Group I are Directed to Statutory Subject Matter

The proper legal standard for statutory subject matter was not applied to the rejected claims. In fact, applying the proper legal standard demonstrates that all claims are directed to statutory subject matter.

#### The Basis for Rejection

As best as Appellant understands the rejection of the claims for being directed to non-statutory subject matter, the basis for that rejection is any or all of the following:

- a. the *purchase price* which is recited in the claims "is not tied to anything concrete and no intended use is indicated in the claims", and thus the claimed invention produces a result which is tangible and useful but not "concrete" (Fourth Office Action, page 2, last paragraph); "these claims do not disclose any use for the result of the rounding, nor do they tie the rounded price with any sort of tangible goods or service." (Fourth Office Action, page 8, last paragraph – page 9, paragraph 1); "the purchase price is completely abstract and not associated with an item, goods, or service" (Fourth Office Action, page 9, paragraph 1);
- b. "the claims do not recite and [sic] pre- or post-computer activity but merely perform a series of steps of receiving data and manipulating the data, and is [sic] directed to non-statutory subject matter" (Fourth Office Action, page 3, last paragraph); "a process is statutory if it requires physical acts to be performed outside of the computer independent of and following the steps performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure." (Fourth Office Action, page 3, last paragraph);
- c. "the claims merely manipulate an abstract idea or perform a purely mathematical algorithm (adding and rounding) without limitation to any practical application. A process which merely manipulates an abstract idea or performs a purely mathematical algorithm in non-statutory despite the fact that it might have some inherent usefulness." (Fourth Office Action, page 3, last paragraph);
- d. The Examiner has interpreted the "*purchase price*" of claim 1 to be "a hypothetical number" which "is not used in any way by the claim" (Fourth Office Action, page 9, paragraph 1);
- e. "a merchant mentally deciding to round a purchase price to any rounding code ... would be infringing on [sic] the claim" (Fourth Office Action, page 9, paragraph 1).

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Thus to the extent the rejection under Section 101 applies a standard that requires additional criteria or otherwise departs from the requisite legal analysis under Section 101, the rejection is flawed.

From the desultory nature of the rejection, it appears that several requirements were imposed upon the claims. Each of the reasons for the finding of non-statutory subject matter rejection, listed above as a – e, is discussed in turn below.

#### The Proper Legal Standard under Section 101

Whether a patent claim is directed to statutory subject matter under 35 U.S.C. § 101 is a question of law. AT & T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 1355, 1359, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999). The legal test for the presence of statutory subject matter is only that a claimed process or apparatus produce a "useful, concrete and tangible result". See, e.g., State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1375, 47 U.S.P.Q.2D 1596 (Fed. Cir. 1998), cert. denied, 525 U.S. 1093, 142 L. Ed. 2d 704, 119 S. Ct. 851 (1999) ("For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a 'useful, concrete, and tangible result.' ... This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss."); AT & T Corp. v. Excel Communications, Inc., ("the focus is understood to be not on whether there is a mathematical algorithm at work, but on whether the algorithm-containing invention, as a whole, produces a tangible, useful, result."); See also, State Street Bank at 1373 ("In Alappat, we held that data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea ... because it produced 'a useful, concrete and tangible result'--the smooth waveform); See also, State Street Bank at 1373 ("in Arrhythmia Research Technology Inc. ... , we held that the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations constituted a practical application of an abstract idea ... because it corresponded to a useful, concrete or tangible thing--the condition of a patient's heart").

While other criteria, if satisfied, may be useful in indicating the presence of a "useful, concrete and tangible result" (and therefore indicate that a claim is statutory), the absence of such

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criteria does not preclude a finding of statutory subject matter. Such other criteria are not requirements, but merely some of several ways that can demonstrate that an invention produces a useful, concrete and tangible result.

For example, a physical transformation by a claimed process is one example (but not a requirement) of how a mathematical algorithm may bring about a useful application. AT & T Corp. v. Excel Communications, Inc., 172 F.3d at 1357, 50 USPQ2d at 1452. See also, Diehr, 450 U.S. at 192 (the "e.g." signal denotes that physical transformation is an example, not an exclusive requirement for satisfying § 101); Arrhythmia Research Tech., 958 F.2d at 1060, 22 USPQ2d at 1039 (Fed. Cir. 1992) (the transformation simply confirmed that Arrhythmia's method claims satisfied § 101 because the method produced a number which had specific meaning - a useful, concrete, tangible result - not a mathematical abstraction).

Likewise, physical limitations are perhaps helpful, but are not necessary to render a claim statutory. AT & T Corp. v. Excel Communications, Inc., 172 F.3d at 1359 ("Whatever may be left of the earlier test, if anything, this type of physical limitations analysis seems of little value ...")

Certain features are not helpful to the proper analysis, and have no bearing on the presence of statutory subject matter. For example, whether a result of a claim is expressed in numbers makes no difference. State Street Bank, 149 F.3d at 1374, 47 USPQ2d at 1602 ("[E]ven if the useful result is expressed in numbers, such as price, profit, percentage, cost or loss", the invention that produces that result is statutory); Arrhythmia Research Tech. Inc. v. Corazonix Corp., 958 F.2d 1053, 1060, 22 U.S.P.Q.2D 1033, 1039 (Fed. Cir. 1992) ("That the product is numerical is not a criterion of whether the claim is directed to statutory subject matter."). When a mathematical algorithm included within a claimed process is "applied to produce a number which had specific meaning - a useful, concrete, tangible result - not a mathematical abstraction", that process claim satisfies § 101. AT & T Corp. v. Excel Communications, Inc., 172 F.3d at 1357, 50 USPQ2d at 1452, citing Arrhythmia Research Tech. v. Corazonix Corp., 958 F.2d 1053, 1060, 22 USPQ2d 1033, 1039 (Fed. Cir. 1992).

Under the proper standard, claims have been found statutory because they produced useful results such as "a final share price", State Street Bank, 149 F.3d at 1373, 47 USPQ2d at 1601, a "value of a PIC indicator" which represents "information about the call recipient's PIC",

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AT & T Corp. v. Excel Communications, Inc., 172 F.3d at 1357, 50 USPQ2d at 1452; and a condition of a patient's heart, Arrhythmia Research Tech. v. Corazonix Corp, 958 F.2d 1053.

The threshold for utility is not high – an invention is “useful” under Section 101 if it is capable of providing some identifiable benefit. Juicy Whip Inc. v. Orange Bang Inc., 185 F.3d 1364, 51 U.S.P.Q.2d 1700 (Fed. Cir. 1999).

#### The Claims Meet the Standard for Statutory Subject Matter

All pending claims produce a useful, concrete and tangible result. The claims of Group I include the limitation of *rounding a purchase price based on the [received] rounding code*. As explained in the Present Application, *rounding a purchase price* results in a useful, concrete and tangible result – a rounded purchase price which a customer is to pay. In certain disclosed embodiments, the rounded purchase price may be paid by the customer in exchange for an upsell as well as other items to purchase. (See, e.g., page 4, lines 13 – 14) Thus, the upsell can be purchased for a price that is effectively determined by the customer. (See, e.g., page 10, lines 1 – 14)

This rounded *purchase price* is not an abstract, disembodied number, but instead has a specific meaning and corresponds to a useful, concrete or tangible result - something which a customer is to pay in exchange for, e.g., items she desires to purchase. The processes claimed can by no stretch of the imagination be classified as “abstract ideas” and are thus properly defined statutory processes.

In this respect, the rounded *purchase price* renders the claim statutory for much the same reason the “final share price” of rendered the claims in State Street Bank statutory:

“Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.”

State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d at 1373.

Using similar reasoning, the *purchase price* of the pending claims is likewise accepted and relied upon by customers and / or merchants - it is something which a customer is to pay if she desires to purchase, e.g., items and an upsell.

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It is also worth noting that the requirement for a “useful invention” is to be evaluated for the **invention**, and is not dependent on the breadth of the claims. Thus, if one species of an invention claimed as a genus is found to be “useful”, utility for the genus is established. Raytheon Co. v. Roper Corp., 724 F.2d 951, 958, 220 USPQ 592, 598 (Fed. Cir. 1983), cert. denied, 469 U.S. 835 (1984) (“When a properly claimed invention meets at least one stated objective, utility under § 101 is clearly shown.”). Utility is to be evaluated in a simple “yes” or “no” fashion (i.e., does the invention as claimed possess or not possess utility). There is no subjective test for “utility” that must be deemed to be commensurate with the breadth of the claims being sought to be patented.

Moreover, the scope of the claims as presented encompass a variety of specific implementations of the claimed processes. Certain of these embodiments implicate the use of POS terminals in the processes. These “computer-based” species clearly fall within the broader generic definition of the claimed processes. Given that utility for a genus may be established through a recitation of utility of a species within that genus, a rejection that the generically claimed processes lack utility is clearly improper.

#### Examiner's Reason (a) is an Incorrect Legal Standard

Reason (a) is generally that (i) the rounded purchase price is “not tied to anything concrete” such as “a tangible good or service”, and (ii) the claims “do not disclose any use for the result of the rounding”. Appellants are unsure of the purported standard that has been applied in this instance. Nevertheless, neither of these two criteria is required, and more importantly neither is a substitute for the proper legal inquiry under Section 101.

Since both the ordinary meaning and the disclosed usage of the term *purchase price* is generally “something which a customer is to pay”, the *purchase price* is not disembodied mathematical abstract. Nevertheless, as disclosed in the present application, the claimed invention can be used in conjunction with *purchase prices* of a wide variety of goods or services. Accordingly, there is no need to limit the claims to any particular “tangible good or service” as required by the Examiner. The fact that what is rounded is a *purchase price*, and not merely an abstract number, renders the claim statutory.

It is similarly of no relevance that the claims do not recite “any use for the result of the rounding”, which Appellant interprets as some sort of post-solution activity.

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The result of a claim must be useful, concrete and tangible. However, the useful result need not be the subject of further recited activity in the claim in order to demonstrate that usefulness. For example, in AT&T Corp., 172 F.3d at 1357, 50 USPQ2d at 1452, the claims were statutory because the "value of a PIC indicator" was a useful, concrete and tangible result. However, there was no "use" of this result recited in the claim. Similarly, in Arrhythmia Research Tech. v. Corazonix Corp., the result (a comparison of a value of a filter's output with a predetermined level) was useful because it helped determine a "condition of a patient's heart". State Street Bank, 149 F.3d at 1373, 47 USPQ2d at 1601. However, no subsequent "use" of this comparison was recited in the claim.

The present application discloses several uses for the *rounded purchase price*, and thus the *rounded purchase price* is clearly a useful result. For example, the rounded purchase price is what the customer pays in exchange for, e.g. items and any upsells to purchase. See, e.g. Present application, page 4, lines 13 – 16; page 12, lines 18 – 19. The rounded purchase price may be stored in revenue field 134 of an entry of the transaction database 28. See, e.g., Present Application, page 11, line 19 - page 12, line 5; FIG. 7.

#### Examiner's Reason (b) is an Incorrect Legal Standard

Reason (b) is generally that the claims do not require "physical acts to be performed outside of the computer" which "involve the manipulation of tangible physical objects". Appellants are unsure of the purported standard that has been applied in this instance. Nevertheless, these criteria are not required, and more importantly are not a substitute for the proper legal inquiry under Section 101.

It is beyond dispute that physical transformation by a claimed process is "not an invariable requirement, but merely one example of how a mathematical algorithm may bring about a useful application." AT & T Corp., 172 F.3d at 1357, 50 USPQ2d at 1452. See also, Diehr, 450 U.S. at 192 (the "e.g." signal denotes that physical transformation is an example, not an exclusive requirement for satisfying § 101).

It is a misunderstanding of Federal Circuit case law to contend that process claims lacking physical limitations are not patentable subject matter. AT & T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 1359, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999). This type of analysis derives from a prior test for statutory subject matter which has been discredited.

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AT&T at 1359 ("Whatever may be left of the earlier test, if anything, this type of physical limitations analysis seems of little value ...") This type of physical limitations analysis is of little value in the Section 101 analysis because "the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a 'useful, concrete and tangible result.'" AT & T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999).

Examiner's Reason (c) is an Incorrect Legal Standard

Reason (c) is generally that the claims "merely manipulate an abstract idea or perform a purely mathematical algorithm (adding and rounding) without limitation to any practical application".

This appears to be a conclusory statement, and not any sort of analysis of the pending claims under Section 101. Perhaps this reason for rejection is in fact the conclusion of the remaining arguments made by the Examiner in the Section 101 rejection.

Nevertheless, as discussed above, the claims are limited to a practical application because they produce a useful, concrete and tangible result - a *rounded purchase price*. The claims do not "merely manipulate an abstract idea" or "perform a purely mathematical algorithm".

Examiner's Reason (d) is an Incorrect Legal Standard

Reason (d) is generally that the Examiner has interpreted the "*purchase price*" of claim 1 to be "a hypothetical number" which "is not used in any way by the claim". Appellants are unsure of the purported standard that has been applied in this instance. Nevertheless, the claims do not recite the manipulation of purely abstract quantities.

As discussed above, the *purchase price* is not an abstract quantity, but is in fact a useful, concrete and tangible result.

Further, also as described above, there is no need for the claims to recite any post-solution activity or other "use" of this result.

Examiner's Reason (e) is an Incorrect Legal Standard

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Reason (e) is generally that the claim must not cover an embodiment which can be performed mentally. Appellants are unsure of the purported standard that has been applied in this instance. Nevertheless, this test is not a requirement, and more importantly is not a substitute for the proper legal inquiry under Section 101.

That a claimed process might read on a mentally performed embodiment does not render a claim nonstatutory. "The inclusion in a patent of a claim to a process that may be performed by a person, but that is also capable of being performed by a machine, is not fatal to patentability. Diamond v. Diehr, 450 U.S. 175, 67 L. Ed. 2d 155, 101 S. Ct. 1048 (1981). The presence of the steps of correlating and combining, which a machine is capable of doing, does not invalidate a patent." Alco Standard Corp. v. Tennessee Valley Authority, 808 F.2d 1490, 1496, 1 USPQ2d 1337, 1341 (Fed. Cir. 1986). See, also, Musco Corp. v. Qualite, Inc., Civ. Application, 106 F.3d 427, 1997 WL 16031 (Fed. Cir. 1997), (per curiam) (unpublished), cert. denied, 118 S. Ct. 60 (1997), 1997 U.S. App. LEXIS 790 ("The existence of mental steps in the claims or specification of a patent do not, in and of themselves, invalidate the patent.").

Further, the mere fact that some or all of the steps of a method "may be carried out in or with the aid of the human mind" does not render a sequence of operational steps non-statutory under 35 U.S.C. §101. In re Musgrave, 431 F.2d 882, 57 C.C.P.A. 1352 (C.C.P.A. 1970). The court in Musgrave rejected the Examiner's reasoning that the claims at issue were non-statutory under 35 U.S.C. §101 because they "include no physical steps but set forth merely a method for processing data which does not require any tangible device or apparatus to carry out the method and hence could be carried out mentally." Musgrave, 431 F.2d at 886. See also, In re Prater, 415 F.2d 1378, 56 C.C.P.A. 1376 (C.C.P.A. 1968) ("patent protection for a process disclosed as being a sequence or combination of steps, capable of performance without human intervention...is not precluded by the mere fact that the process could alternatively be carried out by mental steps.")

For all of the above reasons, the proper legal standard for statutory subject matter was not applied to the rejected claims, which are all directed to statutory subject matter.

#### **1.4. The Claims of Group I are Allowable Over the Cited References** *Group I*

#### 1.4.1. The References Do Not Disclose or Suggest All the Limitations of Any Claim

A reading of the rejection of claim 1 reveals that the Examiner has consistently ignored the limitations of the claims. Several limitations are not disclosed or suggested by the references of record.

##### No reference discloses *receiving a rounding code of a plurality of different rounding codes*

None of the references of record disclose or suggest that *a rounding code of a plurality of different rounding codes is received*.

The Examiner asserts that in Eleftheriou "the price is automatically adjusted (rounded) up or down to the nearest whole dollar, quarter, dime or nickel amount, as desired." Fourth Office Action, page 9, last paragraph. In fact, Eleftheriou discloses that:

"This requires that the effective CB 204 stored on a change card 202 be allowed to fluctuate within a range sufficient enough to cover the fractional nickel cost of any TC 210, that is, zero to four cents ( $\$0.00 \leq CB \leq \$0.04$ ). Therefore, depending on the CB 204 stored on a change card 202, the POS terminal 206 can be programmed to automatically adjust a TC 210 up or down to the nearest whole (fractionless) dollar, or if desired, whole quarter, dime, or nickel, amount."

Col. 8, lines 28 - 36.

Appellants argued that even if Eleftheriou provided for alternative embodiments in which the TC is adjusted to different amounts, this would not be *receiving a rounding code of a plurality of different rounding codes*. Third Response, page 4, paragraphs 2 - 4. In fact nothing is received in Eleftheriou.

However, the Examiner asserts that in Eleftheriou *a rounding code is received* because the system of Eleftheriou could be reprogrammed to round to different multiples. Fourth Office Action, page 9, last paragraph. Thus, according to this reasoning, that the act of reprogramming a device of Eleftheriou to round to different multiples necessarily means that the new device "receives" a new rounding code.

This strained interpretation of Eleftheriou is untenable, as discussed below.

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(a) The system before reprogramming (performs rounding in one way) necessarily operates differently than the system after reprogramming (performs rounding in a different way). The system after reprogramming might have different hardware (e.g. ROMs, PROMs), or might have different software loaded and the prior software overwritten. Under the patent laws, the reprogrammed system becomes a new machine once different software programs the device to perform a different process. See WMS Gaming Inc. v. International Game Tech., 184 F.3d 1339, 1348, 51 U.S.P.Q.2d 1385 (Fed. Cir. 1999) (“A general purpose computer, or microprocessor, programmed to carry out an algorithm creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software”); In re Alappat, 33 F.3d 1526, 1545, 31 USPQ2d 1545 (Fed. Cir. 1994) (en banc) (“programming creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions”); In re Bernhart, 417 F.2d 1395, 1399-1400, 163 U.S.P.Q. 611, 615-16 (CCPA 1969) (“If a machine is programmed in a certain new and unobvious way, it is physically different from the machine without that program”); See, also, In re Noll, 545 F.2d 141, 148, 191 U.S.P.Q. 721, 726 (CCPA 1976); In re Prater, 415 F.2d at 1403 n.29, 162 U.S.P.Q. at 549-50 n.29.

Thus, even if one assumed that the system before modification “*received a rounding code*” by being reprogrammed, that system ceases to exist when the apparatus is powered off and reprogrammed to operate in a different way. Thus, under the Examiner’s interpretation one entity (the system before reprogramming) “receives” the rounding code, and a necessarily separate and different entity (the system after reprogramming) “rounds a purchase price based on the [received] rounding code”.

Since no single entity in Eleftheriou both *receives a rounding code* as well as *rounds a purchase price based on the received rounding code*, Eleftheriou does not disclose a system which performs both steps. In addition, as described below, there is no motivation to modify or combine any of the references of record in a manner which suggests both steps.

(b) Whatever is received in reprogramming the Eleftheriou system is not a rounding code, it is a new software program. Reprogramming of the system of Eleftheriou would mean the software *Group I*

instructions of the Eleftheriou system would be modified. These new software instructions direct the apparatus to perform a new series of mathematical calculations. However, these new instructions would not be a *rounding code of a plurality of different rounding codes*, and thus receiving these new software instructions would not be *receiving a rounding code of a plurality of different rounding codes*.

No reference discloses *rounding a purchase price based on a received rounding code*

To the extent anything is received in any reference of record, in the prior art no *purchase price is rounded based on a received rounding code*.

The Examiner asserts that Eleftheriou can be reprogrammed to round to a different value (of another disclosed embodiment). The Examiner asserts that this reprogramming constitutes *receiving a rounding code*. Fourth Office Action, page 9, last paragraph. Thus, according to this reasoning, the reprogrammed system would then be *rounding a purchase price based on a received rounding code*.

This interpretation of Eleftheriou is untenable, as discussed below.

(a) Eleftheriou does not even *round a purchase price*

The terms used by Eleftheriou might deceive the casual reader, who was suitably armed with hindsight based on Appellant's invention, into inferring similarities between the system of Eleftheriou and Appellant's claimed invention that do not exist.

In fact, Eleftheriou does not even *round a purchase price* in any way, much less *round a purchase price based on a received rounding code*. In Eleftheriou the purchase price (i.e. the price to pay) is not affected at all. The only thing affected by the system of Eleftheriou is how to **apportion the different types of funds** (i.e. cash and change card) the customer uses to pay the (unchanged) purchase price.

In Appellant's invention, a *purchase price* is what the customer is to pay, e.g., for items she desires to purchase. See, e.g., Present application, page 4, lines 10 – 11; page 9, lines 2 – 3. Similarly, the *rounded purchase price* is also what the customer is to pay, e.g., for items and any upsells she desires to purchase. See, e.g. Present application, page 4, lines 13 – 16; page 12, lines 18 – 19.

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Therefore, when a *purchase price* is different from a *rounded purchase price*, a customer who pays a *rounded purchase price* is paying a different amount than if she instead had paid the (unrounded) *purchase price*. Nevertheless, they both indicate what the customer is to pay.

In contrast, Eleftheriou discloses that the 'rounding' has no effect on what the customer pays. Therefore whatever may be rounded in Eleftheriou cannot be a *purchase price* or a *rounded purchase price*. Instead, the rounding in Eleftheriou merely effects the apportionment among types of funds (i.e. cash and change card) a customer uses – the rounding does not affect the amount the customer is to pay (i.e., it does not effect not the *purchase price*).

In Eleftheriou, the balance of change card behaves as if it were an actual container of coins. Col. 5, line 16 - 17. The fractional value of the total cost of a transaction determines whether the customer pays 'with coins' from the change card, or cannot. Col. 2, line 57 - Col. 3, line 4.

A new transaction cost (NTC) is generated in Eleftheriou, in which the NTC represents that portion of the cost that is paid in currency (i.e. the whole dollar amount of the transaction cost). Col. 3, lines 51 - 52. The remainder of the cost is paid with the change card.

If the total cost is, for example, \$2.55, then the fractional value thereof is \$0.55. Col. 3, lines 46 - 50. If the customer, in paying this total cost, has a change balance ('coins in his container') of at least \$0.55, then \$0.55 in 'coins' from his change balance are used, along with a whole dollar cash amount to cover the remainder (i.e. \$2.00). Col. 2, line 64 - Col. 3, line 4. That is, the balance on the change card is reduced by the \$0.55 in 'coins' used to pay.

If, on the other hand, the customer has a smaller change balance ('coins in his container') that is less than \$0.55, then the customer must pay the next whole dollar amount (i.e. \$3.00), and the change due (\$0.45) to the customer is 'put onto' the change card by increasing the change card balance by \$0.45, just as one would place change received from the cashier into one's coin container. Col. 2, lines 59 - 64.

Note that, regardless of whether the change balance is greater than or less than the fractional value or the total cost, the customer pays the same price - \$2.55 in the example above.

In Eleftheriou, if a TC was \$2.55, but the change balance on the change card was \$0.15, the TC would be 'rounded' to \$3.00, so that the NTC is \$3.00. The customer tenders the \$3.00 (NTC), and the change balance on the change card is increased with a renewal amount equal to

one minus the fractional value (i.e.,  $1 - 0.55$ , which is 0.45). Thus, the change balance on the change card is increased by \$0.45 from \$0.15 to \$0.60.

Clearly, then, the transaction has resulted in the customer tendering \$2.00 (in cash) and receiving \$0.45 (in change balance on the change card). In other words, the customer has paid \$2.55, just as a customer who tenders \$3.00 in bills and receives \$0.45 in another form (coins) has paid \$1.75. Eleftheriou thus is directed to a system in which the customer does not pay more or less than she otherwise would have – only the apportionment among types of funds the customer uses (i.e., among bills and change card) are different.

It is clear that Eleftheriou does not change the *purchase price* in any way, either by rounding or otherwise. The purpose of Eleftheriou is to use the change card 202 “as a substitute for coins.” Col. 5, lines 16 – 17. There is no desire in the system of Eleftheriou to depart from the existing prices of merchants by changing those prices in any way. Such a desire would be counter to Eleftheriou, which merely seeks to change the way in which customers pay those specific prices (i.e., using a change card rather than bothersome coins).

In addition, it is clear that Eleftheriou does not *round the purchase price based on a received rounding code* because there is no reason recognized by the prior art to round based on a received rounding code.

Eleftheriou as well as Fiorini and even the Examiner’s Affidavit recognize only one reason for rounding anything- to eliminate handling coins. Rounding merely to eliminate coins is quite straightforward, and in fact there is only one way to eliminate coins -round up to the next higher whole dollar amount. Merely rounding up to eliminate change would not benefit in any way from *rounding a purchase price based on a received rounding code*.

By contrast, the present application and its parent applications disclose many other reasons to *round a purchase price* that are not suggested by the prior art. Specifically, *rounding based on a received rounding code* effectuates these goals. Therefore, even if any reference could be considered to *round a purchase price*, it would be plainly unreasonable to assert that the reference disclosed *rounding a purchase price based on a received rounding code of a plurality of rounding codes*.

#### 1.4.2. No Motivation to Combine or Modify the References

Further, if any of the references did disclose or suggest any of the limitations recited by the claims of Group I, which they do not, the references may not properly be combined in any manner that renders the claims obvious. There is absolutely no motivation in the prior art to modify or combine the disparate references in the way suggested by the Examiner, or in any other manner that renders the claims obvious.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 21 USPQ2d 1941 (Fed. Cir. 1992). Furthermore, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. In re Kotzab, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The motivation proposed for combining Eleftheriou and Fiorini is “in order to provide a more logical rounded price as discussed in paragraph 11c in paper number 11 [sic 12].” Paragraph 11c is found on pages 9 - 11 of the Second Office Action. As best as Appellant understands this paragraph, the Examiner's “more logical rounded price” is that larger priced items should be rounded to higher multiples.

Appellants respectfully suggest that this motivation (i.e., “in order to provide a more logical rounded price”) is not suggested by the prior art, and is only present in the Examiner's lengthy examples. More importantly, this motivation is not even accomplished by the purported combination of references. Most significantly, this motivation has nothing at all to do with the limitations of claim 1, namely

*receiving a rounding code of a plurality of different rounding codes; and  
rounding a purchase price based on the rounding code.*

As discussed above in Section 1.2 “Advantages of Independent Claim 1”, *rounding a purchase price based on a received rounding code* advantageously provides much more flexibility than the prior art – since purchase prices are rounded based on something received, different purchase prices at different times may be rounded as differently as desirable.  
*Group I*

The prior art of record demonstrates no need whatsoever to **determine how to round purchase prices** or to **round the same purchase price in different ways**. In the prior art of record, the rounding need only be sufficient to eliminate troublesome change and / or donate that change to charity. Thus, there is no need to determine how to round a purchase price, much less to *round a purchase price based on a received rounding code*.

The Examiner's combination of Eleftheriou and Fiorini seems to use impermissible hindsight reconstruction absent some real and specific teaching, suggestion, or motivation in the prior art. Appellants note that care must be taken to not use "the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability - the essence of hindsight." In re Dembiczak (No. 98-1498) (Fed. Cir. 1999); Interconnect Planning Corp. v. Feil, 227 USPQ 543, 547 (Fed. Cir. 1985). In other words, the teaching to make the claimed combination must be found in the prior art, and cannot be based on an applicant's disclosure. MPEP 2143.01. In re Mills, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990).

Finally, the Examiner asserts that in Eleftheriou a *rounding code is received* because the system of Eleftheriou could be reprogrammed to round to different multiples. Fourth Office Action, page 9, last paragraph. Appellants note that, to the extent that software may be modified to perform different functions, any software could conceivably be modified to perform any other function. The test, however, is whether the prior art provides a motivation to modify the system in this manner. There is no motivation in the prior art of record to *round a purchase price based on a received rounding code*.

In summary, Fiorini, Eleftheriou, and even the Examiner's Affidavit recognize only one reason for *rounding a purchase price*- to eliminate unwanted change and / or donate that unwanted change to charity. No prior art of record recognizes or suggests any other reason to *round a purchase price*, much less any of the reasons disclosed by the present application and its parent applications. Therefore, even if a reference discloses *rounding a purchase price*, no reference discloses or suggests *rounding a purchase price based on a received rounding code of a plurality of rounding codes*.

#### **1.4.3. The Examiner's Affidavit is not Substantial Evidence**

*Group I*

Applicants assume that the Examiner's Affidavit is provided to bolster the assertion that "rounding the purchase price to eliminate receiving change" was well known at the time of the Appellant's invention. This assumption is suggested by the Fourth Office Action, page 4, last paragraph. If this is the extent to which the Examiner's Affidavit is used in the rejection of any pending claims, then it is merely redundant with Fiorini, which discloses merchants that round prices up and merchants that round prices down.

However, to the extent that additional contents of the Examiner's Affidavit are used in the rejection of any claim, such a rejection would be improper for lack of substantial evidence.

#### Substantial Evidence is Required

All findings of fact by the U.S. Patent and Trademark Office must be supported by substantial evidence within the record. In re Gartside, 203 F.3d 1305, 1315, 53 USPQ2d 1769, 1775 (Fed. Cir. 2000). The Supreme Court has described "substantial evidence" in the following manner:

"substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. . . . Mere uncorroborated hearsay or rumor does not constitute substantial evidence."

Consolidated Edison Co. v. NLRB, 305 U.S. 197, 229, 83 L. Ed. 126, 59 S. Ct. 206 (1938);

See also, Dickinson v. Zurko, 527 U.S. 150, 162, 50 U.S.P.Q.2D 1930, 144 L. Ed. 2d 143, 119 S. Ct. 1816 (1999) ("Zurko III").

Similarly "review under this standard involves an examination of the record as a whole, taking into consideration evidence that both justifies and detracts from the agency's decision."

Universal Camera Corp. v. NLRB, 340 U.S. 474, 487-88, 95 L. Ed. 456, 71 S. Ct. 456 (1951); Zurko III, 527 U.S. at 162.

#### One's Experience Alone is not Substantial Evidence

"With respect to core factual findings in a determination of patentability, however, the Board cannot simply reach conclusions based on its own understanding **or experience** -- or on its assessment of what would be basic knowledge or common sense. Rather, the board must point to some concrete evidence in the record in support of these findings." In re Zurko, 258 F.3d 1379, 1386, 59 U.S.P.Q.2d 1693 (Fed. Cir. 2001) ("Zurko IV") (emphasis added).

*Group I*

This requirement applies even though “the Board clearly has expertise in the subject matter over which it exercises jurisdiction.” Zurko IV, 258 F.3d at 1385 - 86. This expertise may provide sufficient support for conclusions as to peripheral issues, not the core factual findings. Zurko IV, 258 F.3d at 1386. Deficiencies in cited references “cannot be remedied by the Board's general conclusions about what is ‘basic knowledge’ or ‘common sense’ ”. Zurko IV, 258 F.3d at 1385 – 86.

Thus, the Federal Circuit has held that not only is an agency member’s “own understanding or experience” not the same as “concrete evidence in the record”, the agency member’s “own understanding or experience” is not substantial evidence. Only “concrete evidence in the record” is substantial evidence. The Court could not “accept the Board's unsupported assessment of the prior art.” Zurko IV, 258 F.3d at 1386.

It is worth noting that, in Zurko IV, the Court reversed the Board's judgment for lack of substantial evidence support. Zurko IV, 258 F.3d at 1386. It was therefore not merely an instance where the Board failed to articulate and place matter on the record, warranting remand. See, e.g., In re Lee, 277 F.3d 1338, 1346, 61 USPQ2d 1430 (Fed. Cir. 2002), (in the “fine line between agency reasoning that is 'so crippled as to be unlawful' and action that is potentially lawful but insufficiently or inappropriately explained”, “in the former circumstance, the court's practice is to vacate the agency's order, while in the latter the court frequently remands for further explanation ... while withholding judgment on the lawfulness of the agency's proposed action.”)

In summary, an Examiner’s or Board member’s “own experience” standing alone, even if such experience is adequately explained, is not concrete evidence in the record, and is thus not substantial evidence.

#### Documentation or Attestation Does not Create Substantial Evidence from Insubstantial Evidence

Since an Examiner’s or Board member’s “own experience” is not substantial evidence, it would be illogical to convert such undocumented experiences to substantial evidence merely by allowing the assertion to be affirmed under oath. Board members are already bound in their duties to follow ethical canons that are at least as binding as an affirmation under oath. Therefore, an oath could not be considered a ‘cure’ for undocumented experiences.

In light of the recent Federal Circuit decisions in Zurko IV and In re Lee, an Examiner’s Affidavit under 37 C.F.R. § 104(d)(2) cannot be considered substantial evidence of assertions  
*Group I*

which are not supported by concrete evidence in the record. Moreover, that rule never specified that such an affidavit was to be considered, standing alone, substantial evidence which may be used as a primary basis for rejection. Instead, the rule providing for affidavits of Examiners might be better analogized to Official Notice, which as described below, is properly used only to "supplement or clarify the teaching of a reference". In re Ahlert, 424 F.2d 1088 (C.C.P.A. 1969).

#### Questionable Memory

Further reasons for lack of substantial evidence relate to the particular fact of the Examiner's Affidavit. The events asserted occurred no later than 1968, 33 years before the date of the affidavit and when the Examiner was not yet out of High School. The accuracy of the Examiner's memory must be questioned.

#### Hindsight Basis for Remembering

Further, the accuracy of the Examiner's memory must also be questioned because the Examiner's Affidavit was only created during the time of the First Office Action, June 6, 2000, which was 32 years after the events asserted in the Examiner's Affidavit. At that time, the Examiner had already read the Appellant's disclosure. It is extremely likely that the already dim, decades-old memories of the Examiner were influenced by a reading of Appellant's disclosure, and hindsight affected the Examiner's beliefs as to what actually transpired in the 1950's and 1960's.

#### Affidavit Not Challengeable

Pursuant to 37 C.F.R. § 104(d)(2), the Examiner's Affidavit must be "subject to contradiction or explanation by the affidavits of the applicant and other persons."

The need to allow contradiction or explanation presupposes that the assertions in such an affidavit are those which could in some way be countered or clarified by facts in another affidavit. It also presupposes that applicants would solicit such additional affidavits in response to receiving an affidavit of the examiner.

Clearly, this rule would cover situations involving, e.g., facts and truths which could be analyzed by an applicant subsequent to receiving the affidavit of the examiner, so that the applicant could then collect additional facts which "contradict or clarify" the examiner's  
*Group I*

affidavit. Such situations include assertions as to, e.g., the chemical properties of substances, mechanical characteristics of apparatus components, and electrical properties of circuits. Such situations involve facts which, if proven today, demonstrate that they were previously true as well. Thus they are subject to contradiction because a current investigation or explanation can demonstrate the veracity of the assertions, or lack thereof.

However, an assertion of a public use, especially one in which no additional parties are made available to the applicant and the alleged activity has ceased, is not contemplated by the rule. Patent applicants could not "challenge" a statement of a public use, especially one which was, of its face, not widespread or readily disseminated beyond an extremely small group, and one which does not name corroborating witnesses who are available.

The Examiner's Affidavit refers to the Examiner, the store owner and other unspecified "classmates". Each of these parties is not available to the Appellant, and thus the Examiner's Affidavit is not "subject to contradiction or explanation." The Examiner cannot be called upon by Appellant to testify or clarify his assertions under oath through the patent examination process. The store owner is deceased according to the Examiner's Affidavit. The remaining parties are unnamed, and there is no specificity as to who else might be able to contradict or deny the assertions in the Examiner's Affidavit.

Accordingly, the Examiner's Affidavit is not subject to contradiction, and thus contravenes the rule which provides for an affidavit of the Examiner.

#### Contravenes Public Use Procedures

The rules provide for public use proceedings when there is an allegation of public use or sale more than one year before the filing of the application. These rules provide procedural and substantive safeguards which are circumvented by allowing a patent examiner to allege public use via an affidavit alone during ex parte examination.

The Commissioner has the authority to declare a public use proceeding in which a patent application may be rejected as anticipated by a public use. 37 C.F.R. § 1.292. If such proceedings are instituted, the patent applicant must be afforded the opportunity to cross examine witnesses whose testimony is used in alleging a prior public use of the invention. 37 C.F.R. § 1.292(a); 37 C.F.R. § 1.671 - 1.685. Evidence must comply with the Federal Rules of Evidence. 37 C.F.R. § 1.671(b). Parties are allowed to, e.g., seek permission to compel testimony or the  
*Group I*

production of documents of things under 35 U.S.C. § 24 or from an opposing party. 37 C.F.R. § 1.671(g) - (h). Witnesses may be examined. 37 C.F.R. § 1.673 - 1.675.

Thus, these rules clarify the substantive and procedural burdens that must be met in invalidating an application based on evidence of public use or sale more than one year before the filing of the application.

None of these procedural safeguards are afforded to an applicant who is faced with an assertion of public use based solely on the assertions of a patent examiner. Appellant has no authority during ex parte examination to, e.g., cross examine the Examiner or compel the Examiner to clarify his assertions.

#### Not Based on Examiner's Expertise in the Art

The events asserted occurred before the Examiner graduated high school, and thus before the Examiner accumulated the experience in searching and analyzing the prior art. This experience is the basis for the presumption of administrative expertise of Patent Examiners.

Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1139, 227 USPQ 543, 548, (Fed. Cir. 1985).

Thus, the memories and assessments of an allegedly similar prior art system were made by one without the expertise accumulated in the role of a Patent Examiner.

#### Such Assertions Are Not Those of an Unbiased, Third Party

As discussed above, the Examiner provided the Examiner's Affidavit only after reading Appellant's disclosure. Thus, the assertions are of questionable accuracy on hindsight reconstruction based on Appellant's disclosure. Further, the Examiner cannot be said to be completely unbiased because the Examiner has at least a partial interest in the ability to give an unchallenged rejection based on personal knowledge alone.

#### Allowing Examiner Allegations of Prior Public Use Would Dramatically Change Examination

If an affidavit of an Examiner, alleging prior but currently discontinued public use of an invention, were allowed to constitute substantial evidence, ex parte examination would be dramatically altered. All examiners would have at least a partial interest in remembering facts, especially activities in their distant past, in a manner which more closely resembled the

*Group I*

applicants' inventions, which were of course under review by those examiners and had already been studied by those examiners.

No new testimony allowed

Finally, Appellant note in passing that, if any new affidavit is offered from this time forward to bolster the prior Examiner's Affidavit, this new assertions would, at best, serve as a new basis for rejection: facts not considered or relied upon by the Examiner in rejecting the claims. It would not be an affirmation of the rejection based on existing evidence in the record, since such new assertions were not previously in the record.

**1.4.4. Other Subject Matter Without Support in the Record is not Substantial Evidence**

Appellants note that the scope of the matter of which the Examiner takes Official Notice is limited to the substantial evidence in the record for such matter. The references of record do not support the Examiner's broad assertions as to what was well known. At best, the prior art of record shows that only a very limited form of the asserted matter was known.

Accordingly, the Examiner's sweeping assertions which are not supported by the references of record lack substantial evidence, and therefore cannot be used as prior art to the present application. Only the content of the references of record which are prior art to the present application may so used. "[D]eficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.'" In re Zurko, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001); In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

Further, too the extent such extra-record assertions might be deemed official notice, officially-noted subject matter cannot be used as the **basis** for a rejection under 102 or 103. Official Notice may be used, if at all, only to clarify the meaning of a reference. See, e.g., In re Ahlert, 424 F.2d 1088 (C.C.P.A. 1969) ("Typically, it is found necessary to take notice of facts which may be used to supplement or **clarify the teaching of a reference** disclosure, perhaps to justify or explain a particular inference to be drawn **from the reference teaching**." ) (emphasis added).

*Group I*

In other words, official notice of what existed in the prior art is not permitted. A reference must be provided to show the scope and content of the prior art. See, e.g., In re Ahlert, 424 F.2d 1088 (C.C.P.A. 1969) ("Assertions of technical facts in areas of esoteric technology **must always be supported by citation to some reference** work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference. ... Allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported and the appellant similarly given the opportunity to make a challenge.") (emphasis added); In re Eynde, 480 F.2d 1364 (C.C.P.A. 1973) ("[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. Facts constituting the state of the art in a patent case are normally subject to the possibility of rational disagreement among reasonable men, and **are not amenable to the taking of judicial or administrative notice.**") (emphasis added); In re Pardo, 684 F.2d 912 (C.C.P.A. 1982) ("[T]his court will always **construe [the rule permitting judicial notice] narrowly** and will regard facts found in such manner with an eye toward narrowing the scope of any conclusions to be drawn therefrom. Assertions of technical facts in areas of esoteric technology **must always be supported by citation to some reference work** recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference.") (emphasis added)

In conclusion, since none of the references disclose or suggest the limitations of the claims of Group I, none possess the advantages conferred by those limitations, as discussed in detail above in section 1.2.2 "Advantages of Claim 1". Accordingly, for at least those reasons, the claims of Group I are patentable in view of the cited references.

*Group I*

## 2. Group II

### SEPARATE ARGUMENT OF PATENTABILITY

Group II includes independent claim 2. Independent claim 2 is an apparatus claim which recites parallel limitations to those of method claim 1, discussed above in Group I.

Accordingly, all arguments above with respect to Group I are equally applicable to Group II. Moreover, additional arguments are provided below for the patentability of the claims of Group II.

#### 2.1. Independent Claim 2

Independent claim 2 is directed to an apparatus comprising a storage device and a processor connected thereto. The storage device stores a program for controlling the processor. The processor is operative with the program to receive a rounding code of a plurality of different rounding codes, and to round a purchase price based on the rounding code.

#### 2.2. The References Do Not Disclose or Suggest All the Limitations of Any Claim

##### No reference discloses a processor operative with a program

As discussed above in Section 1.4.1 with respect to Group I, the Examiner asserts that in Eleftheriou a *rounding code is received* because the system of Eleftheriou could be reprogrammed to round to different multiples. Fourth Office Action, page 9, last paragraph. Thus, according to this reasoning, that the act of reprogramming a device of Eleftheriou to round to different multiples necessarily means that the new device “receives” a new rounding code.

Clearly, the admission that Eleftheriou must be reprogrammed is completely contrary to the limitation of a *processor operative with a program to receive a rounding code*. Since Eleftheriou on its face does not disclose a *processor which is operative with a program to*

*Group II*

*receive a rounding code* (the rounding code being new software in the Examiner's interpretation), Eleftheriou cannot disclose this limitation.

Further, since Eleftheriou on its face does not possess the capability, without reprogramming, to round in different ways (i.e. round based on a received rounding code), Eleftheriou cannot disclose the limitation of a *processor operative with the program to round a purchase price based on the received rounding code.*

### **2.3. No Motivation to Combine or Modify the References**

Further, if any of the references did disclose or suggest any of the limitations recited by the claims of Group II, which they do not, the references may not properly be combined in any manner that renders the claims obvious. There is absolutely no motivation in the prior art to modify or combine the disparate references in the way suggested by the Examiner, or in any other manner that renders the claims obvious.

Since Eleftheriou on its face does not possess the capability, without reprogramming, to round in different ways, Eleftheriou (as well as the other references of record) likewise cannot suggest the claimed limitations discussed above.

### 3. Group III

#### SEPARATE ARGUMENT OF PATENTABILITY

Group III includes independent claims **3 and 5**. Independent claims **3 and 5** are method claims which recite somewhat similar limitations to those of method claim **1**, discussed above in Group I. In particular, method claim **3** recites further that the received rounding code *has a corresponding rounding multiple*. Also, independent claim **3** recites instead that *the purchase price is rounded based on the rounding multiple*. Independent claim **5** similarly recites an additional step of *determining a rounding multiple... corresponding to the received rounding code*.

Accordingly, arguments above with respect to Group I are likewise applicable to Group III - e.g., the rounded purchase price still renders the claims statutory, and the deficiencies in the prior art with respect to a rounding code are equally present with respect to a rounding multiple. Moreover, additional arguments are provided below for the patentability of the claims of Group III.

#### 3.1. Independent Claim 3 and 5

Independent claim **3** is directed to a method in which a rounding code is received, and the rounding code has a corresponding rounding multiple of a plurality of different rounding multiples. A purchase price is rounded based on the rounding multiple.

Independent claim **5** is directed to a method in which a rounding code is received, and a rounding multiple of a plurality of different rounding multiples is determined. A purchase price is rounded based on the rounding multiple.

#### 3.2. Advantages of Independent Claims 3 and 5

The embodiments of claims **3 and 5** provide several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.  
*Group III*

In addition to the advantages discussed above with respect to Group I, by rounding the purchase price *based on a rounding multiple* (e.g., rather than in a more complicated manner), the purchase price can be rounded in a fairly straightforward and easily understood manner. If the manner of rounding is understood by the customer, the promotions which take advantage of the rounding may be more readily accepted by customers.

*Group III*

#### **4. Group IV**

##### **SEPARATE ARGUMENT OF PATENTABILITY**

Group IV includes independent claims **4 and 6**. Independent claims **4 and 6** are apparatus claims which recite parallel limitations to those of method claims **3 and 5** respectively, discussed above in Group III.

Accordingly, all arguments above with respect to Group III are equally applicable to Group IV. Moreover, additional arguments are provided below for the patentability of the claims of Group IV.

##### **4.1. Independent Claims 4 and 6**

Independent claim **4** is directed to an apparatus comprising a storage device and a processor connected thereto. The storage device stores a program for controlling the processor. The processor is operative with the program to receive a rounding code which has a corresponding rounding multiple of a plurality of different rounding multiples, and to round a purchase price based on the rounding multiple.

Independent claim **6** is directed to an apparatus comprising a storage device and a processor connected thereto. The storage device stores a program for controlling the processor. The processor is operative with the program to receive a rounding code, and determine a rounding multiple of a plurality of different rounding multiples, and to round a purchase price based on the rounding multiple.

##### **4.2. The References Do Not Disclose or Suggest All the Limitations of Any Claim**

No reference discloses *a processor operative with a program*

*Group IV*

As discussed above in Section 1.4.1 with respect to Group I, the Examiner asserts that in Eleftheriou a *rounding code is received* because the system of Eleftheriou could be reprogrammed to round to different multiples. Fourth Office Action, page 9, last paragraph. Thus, according to this reasoning, that the act of reprogramming a device of Eleftheriou to round to different multiples necessarily means that the new device “receives” a new rounding code.

Clearly, the admission that Eleftheriou must be reprogrammed is completely contrary to the limitation of a *processor operative with a program to receive a rounding code*. Since Eleftheriou on its face does not disclose *a processor which is operative with a program to receive a rounding code* (the rounding code being new software in the Examiner's interpretation), Eleftheriou cannot disclose this limitation.

Further, since Eleftheriou on its face does not possess the capability, without reprogramming, to round in different ways (i.e. round based on a received rounding code), Eleftheriou cannot disclose the limitation of a *processor operative with the program to round a purchase price based on the rounding multiple*.

#### 4.3. No Motivation to Combine or Modify the References

Further, if any of the references did disclose or suggest any of the limitations recited by the claims of Group IV, which they do not, the references may not properly be combined in any manner that renders the claims obvious. There is absolutely no motivation in the prior art to modify or combine the disparate references in the way suggested by the Examiner, or in any other manner that renders the claims obvious.

Since Eleftheriou on its face does not possess the capability, without reprogramming, to round in different ways, Eleftheriou (as well as the other references of record) likewise cannot suggest the claimed limitations discussed above.

## 5. Group V

### SEPARATE ARGUMENT OF PATENTABILITY

Group V includes independent claim 7 and dependent claims 8 - 15. Independent claim 7 is a method claim which recites similar limitations to those of method claim 1, discussed above in Group I. In particular, independent method claim 7 recites further that *a plurality of rounding codes are received*. Also, independent claim 3 recites instead that *the purchase price is rounded based on the rounding codes*.

Accordingly, all arguments above with respect to Group I are likewise applicable to Group V - e.g., the rounded purchase price still renders the claims statutory, and the deficiencies in the prior art with respect to a rounding code are equally present with respect to a plurality of rounding codes. Moreover, additional arguments are provided below for the patentability of the claims of Group V.

#### 5.1. Independent Claim 7

Independent claim 7 is directed to a method in which a plurality of rounding codes are received, and each rounding code has a corresponding rounding multiple and fixed price. A purchase price is determined, and is rounded based on the rounding codes.

#### 5.2. Advantages of Independent Claim 7

The embodiment of claim 7 provides several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above with respect to Group I, by *receiving a plurality of rounding codes*, the disclosed method can be used in conjunction with a plurality of upsells. Present Application, page 12, line 20 - page 13, line 2; FIG. 9 and associated text at page 13, line 3 - page 14, line 4.

Further, by *rounding the purchase price based on the rounding codes*, one disclosed embodiment allows a rounding code to be selected depending on various criteria, and the Group V

purchase price rounded accordingly. Present Application, page 13, lines 8 - 18; page 14, lines 17 - 23.

### 5.3. The Claims of Group V are Allowable Over the Cited References

#### 5.3.1. The References Do Not Disclose or Suggest All the Limitations of Any Claim

A reading of the rejection of claim 7 reveals that the Examiner has consistently ignored the limitations of the claims. Several limitations are not disclosed or suggested by the references of record.

As discussed in Section 1.4.1 above, Eleftheriou does not disclose *receiving a rounding code*.

No reference discloses *receiving a plurality of rounding codes*, much less that each such rounding code *has a corresponding rounding multiple and fixed price*, much less *rounding a purchase price based on the rounding codes*.

The Examiner asserts that "Fiorini and Eleftheriou disclose rounding off purchase prices using rounding codes and multipliers". Fourth Office Action, page 5, last paragraph - page 6, paragraph 1.

However, a reading of both references clearly reveal that no *rounding code is received* (as discussed with respect to Group I above). Further, no *plurality of rounding codes is received* in any reference of record. In fact, there would be no need to receive a plurality of rounding codes since in both Fiorini and Eleftheriou the rounding calculations are performed to eliminate the handling of coins. No plurality of rounding codes need be received to accomplish this modest goal.

Further, the Examiner asserts that in Eleftheriou a *rounding code is received* because the system of Eleftheriou could be reprogrammed to round to different multiples. Fourth Office Action, page 9, last paragraph. Thus, according to this reasoning, that the act of reprogramming a device of Eleftheriou to round to different multiples necessarily means that the new device "receives" a new rounding code. Even this strained interpretation of Eleftheriou plainly shows

*Group V*

an inability to receive a *plurality* of rounding codes, or to *round a purchase price based on the rounding codes*.

Further, the Examiner asserts (without any support in the record) that "it is old and well known within the retail arts to set a fixed price for each product, ... and to associate the fixed price and rounding code (multiplier)." No art of record discloses or even suggest such a feature. In fact, no art of record discloses anything to do with a rounding code, much less that a rounding code has both a corresponding rounding multiple and fixed price. The Examiner points to Eleftheriou for support of his assertions, but that reference merely discloses that goods have fixed prices. Col. 7, lines 12- 14. There is no hint or suggestion in Eleftheriou of anything at all similar to a rounding code having *a corresponding rounding multiple and fixed price*.

## 6. Group VI

### SEPARATE ARGUMENT OF PATENTABILITY

Group IV includes independent claims 16 and dependent claims 17 - 24. Independent claims 16 is an apparatus claim which recites parallel limitations to those of method claim 7, discussed above in Group V.

Accordingly, all arguments above with respect to Group V are equally applicable to Group VI. Moreover, additional arguments are provided below for the patentability of the claims of Group VI.

#### 6.1. Independent Claim 16

Independent claim 16 is directed to an apparatus comprising a storage device and a processor connected thereto. The storage device stores a program for controlling the processor. The processor is operative with the program to receive a plurality of rounding codes which each have a corresponding rounding multiple and fixed price. The processor is further operative with the program to determine a purchase price, and to round the purchase price based on the rounding codes.

#### 6.2. The References Do Not Disclose or Suggest All the Limitations of Any Claim

##### No reference discloses a processor operative with a program

As discussed above in Section 1.4.1 with respect to Group I, the Examiner asserts that in Eleftheriou a rounding code is received because the system of Eleftheriou could be reprogrammed to round to different multiples. Fourth Office Action, page 9, last paragraph. Thus, according to this reasoning, that the act of reprogramming a device of Eleftheriou to round to different multiples necessarily means that the new device “receives” a new rounding code.

*Group VI*

Clearly, the admission that Eleftheriou must be reprogrammed is completely contrary to the limitation of a *processor operative with a program to receive a plurality of rounding codes*. Since Eleftheriou on its face does not disclose *a processor which is operative with a program to receive a plurality of rounding codes* (the rounding codes presumably being new software in the Examiner's interpretation), Eleftheriou cannot disclose this limitation.

Further, since Eleftheriou on its face does not possess the capability, without reprogramming, to round in different ways (i.e. round based on a received rounding code), Eleftheriou cannot disclose the limitation of a *processor operative with the program to round a purchase price based on the rounding codes*.

### **6.3. No Motivation to Combine or Modify the References**

Further, if any of the references did disclose or suggest any of the limitations recited by the claims of Group V, which they do not, the references may not properly be combined in any manner that renders the claims obvious. There is absolutely no motivation in the prior art to modify or combine the disparate references in the way suggested by the Examiner, or in any other manner that renders the claims obvious.

Since Eleftheriou on its face does not possess the capability, without reprogramming, to round in different ways, Eleftheriou (as well as the other references of record) likewise cannot suggest the claimed limitations discussed above.

## **7. Group VII**

### **SEPARATE ARGUMENT OF PATENTABILITY**

Group VII includes independent method claims **25, 26 and 27**. Independent claims **25, 26 and 27** recite somewhat similar limitations to those of method claim **1** and method claim **3**, (Groups I and III) as discussed below.

Accordingly, arguments above with respect to Groups I and III are likewise applicable to Group VII - e.g., the rounded purchase price still renders the claims statutory, and the deficiencies in the prior art with respect to a rounding code are equally present with respect to a rounding multiple. Moreover, additional arguments are provided below for the patentability of the claims of Group VII.

#### **7.1. Independent Claims 25, 26 and 27**

Independent claims **25 - 27** are all directed to a method in which a purchase price for a purchase including at least one item is determined. In addition, these claims all recite that a rounding code is received from a first item not included in the purchase.

Independent claims **25 and 26** then recite that a rounding multiple corresponding to the received rounding code is determined. Independent claim **27** in contrast recites that a rounding multiple is selected from a plurality of rounding multiples based on the received rounding code.

The purchase price is rounded based on the rounding multiple (or selected rounding multiple).

Claim **25** recites allowing an exchange of the at least one item and the first item for the rounded purchase price.

Claim **26 and 27** both recite receiving the rounded purchase price in exchange for the at least one item and the first item.

#### **7.2. Advantages of Independent Claims 25, 26 and 27**

*Group VII*

The embodiments of claims **25, 26 and 27** provide several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above with respect to Group I, by rounding the purchase price *based on a rounding multiple* (e.g., rather than in a more complicated manner), the purchase price can be rounded in a fairly straightforward and easily understood manner. If the manner of rounding is understood by the customer, the promotions which take advantage of the rounding may be more readily accepted by customers.

In addition to the advantages discussed above with respect to Group I, by *receiving a rounding code from a first item not included in the purchase*, the rounding code can be determined from an item that is selected by the customer and, e.g., carried by the customer to the cashier. Such items may be upsells, and such a customer-selected upsell is much more time efficient. Present Application, page 5, lines 16 - 20. Further, such a customer-selected upsell is advantageous in clearing old or aging inventory. Present Application, page 5, line 21 - page 6, line 2. Such a customer-selected upsell is also clearly more likely to be actually accepted and purchased by the customer, compared to another offer made to the customer.

In addition to the advantages discussed above with respect to Group I, by *allowing an exchange of the at least one item and the first item for the rounded purchase price*, rounding a purchase price may be done to accomplish many goals not suggested by the prior art, such as providing a customer an offer for an upsell in exchange for the customer paying a rounded price (e.g. only rounded to the next higher dollar). See, e.g., Present Application, page 2, line 19 – page 3, line 2. The price of the upsell is the difference between the purchase price and the rounded purchase price.

Such an offer is highly likely to be accepted. For example, the difference between the purchase price and the rounded purchase price may be small enough to represent a discount off of the normal retail price, yet still high enough to yield a profit for the merchant. Thus, the upsell may represent an incremental sale the merchant would not otherwise have made, and the incremental sale incurs no additional costs.

Similar arguments apply to the recited step of *receiving the rounded purchase price in exchange for the at least one item and the first item* (claims **26 and 27**).

*Group VII*

### **7.3. The Claims of Group VII are Allowable Over the Cited References**

#### **7.3.1. The References Do Not Disclose or Suggest All the Limitations of Any Claim**

The deficiencies in the art of record with respect to *receiving a rounding code and rounding the purchase price based on a rounding multiple (based on or corresponding to the rounding code)* have been discussed above with respect to Groups I and III.

Further, the prior art does not disclose *receiving a rounding code from a first item not included in the purchase*. This limitation is highly advantageous, as described above in Section 7.2.

The Examiner has apparently ignored this limitation, as there is no assertion that the prior art discloses or suggests such a feature. The Examiner contends only that "providing an item not included [in] the original purchase price [sic] in addition to the item(s) originally being purchased in exchange for the rounded purchase price" is well known.

#### **7.3.2. No Motivation to Combine or Modify the References**

The deficiencies in the art of record with respect to a proper motivation to combine have been discussed with respect to Groups I and III.

Further, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) to *receive a rounding code from a first item not included in the purchase*. To the extent the prior art suggests anything about *a first item not included in the purchase*, the prior art does not suggest that *a rounding code is received from* such an item. Since in the prior art the same purchase price (e.g. \$8.25) would always be rounded in the same way, and there is no rounding in different ways, there would be no need to *receive a rounding code from a first item not included in the purchase*.

Finally, in embodiments the customer herself can help determine how a rounded price is determined (e.g., where the customer selects the first item not included in the purchase). Such an embodiment is contrary to the Examiner's repeated assertions that the merchant (not the

*Group VII*

customer) chooses to round to particular multiples. See, e.g., Fourth Office Action, page 10 - page 13.

## 8. Group VIII

### SEPARATE ARGUMENT OF PATENTABILITY

Group VIII includes independent method claims **28 and 30**. Independent claims **28 and 30** recite somewhat similar limitations to those of method claim 1, discussed above in Group I, as discussed below.

Accordingly, arguments above with respect to Group I are likewise applicable to Group VIII - e.g., the rounded price still renders the claims statutory, and the deficiencies in the prior art remain. Moreover, additional arguments are provided below for the patentability of the claims of Group VIII.

#### 8.1. Independent Claims 28 and 30

Independent claims **28 and 30** are each directed to a method in which there is *received from a customer (a signal indicative of) at least one item. A price for the at least one item is determined.*

Further, there is *a first item, which is not included in the at least one item.* In claim **28**, *a signal indicative of a scanned bar code on the first item is received.* In claim **30**, *the first item is received and a bar code on the first item is scanned.*

In both claims **28 and 30**, *an integer is selected from a plurality of integers based on the scanned bar code. At least one of the plurality of integers is "1". A rounded price is determined based on the price and the selected integer. The rounded price is a lowest multiple of the selected integer that is greater than the price.*

In claim **28**, *the rounded price is set as required payment for the at least one item and the first item. The rounded price is registered as being paid for by the customer.*

In claim **30**, *the customer is charged the rounded price for the at least one item and the first item. Payment of the rounded price is received from the customer.*

#### 8.2. Advantages of Independent Claims 28 and 30

*Group VIII*

The embodiments of claims **28 and 30** provide several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above with respect to Group I, in the claims of Group VIII there is a *first item not included in the at least one item*. Further, there is received either *a signal indicative of a scanned bar code on the first item* (claim **28**) or *the first item, on which there is a bar code which is scanned* (claim **30**). In conjunction with *selecting an integer from a plurality of integers based on the scanned bar code*, the claimed methods allowing a rounded price to be determined from an item that is selected by the customer and, e.g., carried by the customer to the cashier. Such items may be upsells, and such a customer-selected upsell is much more time efficient. Present Application, page 5, lines 16 - 20. Further, such a customer-selected upsell is advantageous in clearing old or aging inventory. Present Application, page 5, line 21 - page 6, line 2. Such a customer-selected upsell is also clearly more likely to be actually accepted and purchased by the customer, compared to another offer made to the customer.

In addition to the advantages discussed above with respect to Group I, by *setting the rounded price as required payment for the at least one item and the first item* or by *charging the customer the rounded price for the at least one item and the first item*, rounding a purchase price may be done to accomplish many goals not suggested by the prior art, such as providing a customer an offer for an upsell in exchange for the customer paying a rounded price (e.g. only rounded to the next higher dollar). See, e.g., Present Application, page 2, line 19 – page 3, line 2. The price of the upsell is the difference between the purchase price and the rounded purchase price.

Such an offer is highly likely to be accepted. For example, the difference between the purchase price and the rounded purchase price may be small enough to represent a discount off of the normal retail price, yet still high enough to yield a profit for the merchant. Thus, the upsell may represent an incremental sale the merchant would not otherwise have made, and the incremental sale incurs no additional costs.

Further, because the embodiments of claims **28 and 30** involve a *scanned bar code*, efficient machine processing of data may be used. In addition, a cashier involved in such a transaction need not do anything different, since scanning bar codes of items would be part of the cashier's routine. Thus, the claimed embodiments may be performed without significant retraining of cashiers.

*Group VIII*

Further, by determining *a rounded price which is the lowest multiple of a selected integer that is greater than the price* (e.g., rather than in a more complicated manner), the price can be rounded in a fairly straightforward and easily understood manner. If the manner of rounding is understood by the customer, the promotions which take advantage of the rounding may be more readily accepted by customers.

### 8.3. The Claims of Group VII are Allowable Over the Cited References

#### 8.3.1. The References Do Not Disclose or Suggest All the Limitations of Any Claim

The deficiencies in the art of record with respect to *receiving a rounding code* has been discussed with respect to Group I.

The deficiencies in the art of record with respect to *rounding based on a rounding code* (Group I) have likewise been discussed. The art of record is similarly deficient with respect to *determining a rounded price based on .. an integer selected based on the scanned bar code of the first item not included in the at least one item*. In particular, the prior art does not disclose or suggest this way of determining a rounded price: (i) the prior art does not disclose that there is a *first item not included in the at least one item*, and that there is received either *a signal indicative of a scanned bar code on the first item* (claim 28) or *a bar code on the first item is scanned* (claim 30); (ii) the prior art does not disclose that, *based on the scanned bar code, an integer is selected from a plurality of integers, in which at least one of the plurality of integers is "1"*; and (iii) the prior art does not disclose that this selected integer is used in determining the rounded price: *a rounded price is determined to be the lowest multiple of the selected integer that is greater than the price*. These limitations are highly advantageous, as described above in Section 8.2.

The Examiner asserts that Eleftheriou "discloses that the price is rounded up or down to the nearest whole dollar (i.e. an integer of 100) or to whole quarters, dimes, nickels, pennies, etc. (i.e. an integer of 25, 10, 5, 1, etc.). The disclosure that the price can be rounded up infers that the price is rounded to the lowest multiple of the integer that is greater than the price." Fourth Office Action, page 7, last paragraph.  
*Group VIII*

However, as discussed in Section 1.4.1 above, Eleftheriou does not even *round a purchase price*. In addition, Eleftheriou does not *select an integer from a plurality of integers based on the scanned bar code*, in which *at least one of the plurality of integers is "1"*. Eleftheriou likewise does not disclose that a *rounded price is determined based on the price and the selected integer*. In Eleftheriou, the bar code is used only to indicate "cost and other requisite information". Col. 5, lines 61 - 64. No other description or use of a bar code is disclosed or suggested by Eleftheriou or any other prior art of record.

The Examiner has apparently ignored these claim limitations, since there is no specific assertion that the prior art discloses or suggests such limitations. The Examiner contends only that "it would have been obvious ... to round the purchase price up to the nearest multiple of the integer selected from the plurality of possible rounding integers." Fourth Office Action, page 7, last paragraph.

### 8.3.2. No Motivation to Combine or Modify the References

The deficiencies in the art of record with respect to a proper motivation to combine have been discussed with respect to Groups I and III.

Further, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) to *select an integer from a plurality of integers based on the scanned bar code [of a first item not included in the at least one item]*, in which *at least one of the plurality of integers is "1"*. Similarly, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) that a *rounded price is determined based on the price and the selected integer*.

Since in the prior art the same purchase price (e.g. \$8.25) would always be rounded in the same way (e.g., to \$10), and there is no rounding in different ways, there would be no need to *determine a rounded price based on the price and the selected integer*, nor would there be a need to *select an integer from a plurality of integers based on the scanned bar code [of a first item not included in the at least one item]*. In fact, the prior art does not recognize any advantage or motivation to *determine a rounded price based on anything associated with a first item not included in the at least one item*, specifically when such an item is received from the customer (claim 30).

Group VIII



## 9. Group IX

### SEPARATE ARGUMENT OF PATENTABILITY

Group IX includes independent method claim 29. Independent claim 29 recites somewhat similar limitations to those of method claim 1, discussed above in Group I, as discussed below.

Accordingly, arguments above with respect to Group I are likewise applicable to Group IX - e.g., the rounded price still renders the claims statutory, and the deficiencies in the prior art remain. Moreover, additional arguments are provided below for the patentability of the claims of Group IX.

#### 9.1. Independent Claims 29

Independent claim 29 is directed to a method in which at least one item is received from a customer, and a first item is also from a customer. The first item is not included in the at least one item.

A price is determined for the at least one item, and a rounding multiple is determined based on the first item.

A rounded price is determined based on the price and the rounding multiple. The customer is charged the rounded price for the at least one item and the first item, and payment of the rounded price is received from the customer.

#### 9.2. Advantages of Independent Claim 29

The embodiments of claim 29 provides several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above with respect to Group I, in the claims of Group IX *a first item not included in the at least one item is received. Further, a rounding multiple is determined based on the first item. In conjunction with determining a rounded price based on the price and the rounding multiple, the claimed methods allowing a rounded price to be determined from an item that is selected by the customer and, e.g., carried by the customer to Group IX*

the cashier. Such items may be upsells, and such a customer-selected upsell is much more time efficient. Present Application, page 5, lines 16 - 20. Further, such a customer-selected upsell is advantageous in clearing old or aging inventory. Present Application, page 5, line 21 - page 6, line 2. Such a customer-selected upsell is also clearly more likely to be actually accepted and purchased by the customer, compared to another offer made to the customer.

In addition to the advantages discussed above with respect to Group I, by *determining a rounded price based on this rounding multiple and charging the customer the rounded price for the at least one item and the first item*, a price may be rounded to accomplish many goals not suggested by the prior art, such as providing a customer an offer for an upsell in exchange for the customer paying a rounded price (e.g. only rounded to the next higher dollar). See, e.g., Present Application, page 2, line 19 – page 3, line 2. The price of the upsell is the difference between the purchase price and the rounded purchase price.

Such an offer is highly likely to be accepted. For example, the difference between the purchase price and the rounded purchase price may be small enough to represent a discount off of the normal retail price, yet still high enough to yield a profit for the merchant. Thus, the upsell may represent an incremental sale the merchant would not otherwise have made, and the incremental sale incurs no additional costs.

Further, by determining *a rounded price based on a rounding multiple* (e.g., rather than in a more complicated manner), the price can be rounded in a fairly straightforward and easily understood manner. If the manner of rounding is understood by the customer, the promotions which take advantage of the rounding may be more readily accepted by customers.

### **9.3. The Claims of Group IX are Allowable Over the Cited References**

#### **9.3.1. The References Do Not Disclose or Suggest All the Limitations of Any Claim**

The deficiencies in the art of record with respect to *rounding based on a rounding code* (Group I) have likewise been discussed. The art of record is similarly deficient with respect to *determining a rounded price based on ... a rounding multiple determined based on a first item not included in the at least one item*. In particular, the prior art does not disclose or suggest this Group IX

way of determining a rounded price: (i) the prior art does not disclose that there is a *first item not included in the at least one item*, and that there is determined a *rounding multiple based on the first item*; (ii) the prior art does not disclose that a *rounded price is determined based on ... the rounding multiple*. These limitations are highly advantageous, as described above in Section 9.2.

The Examiner asserts that Eleftheriou "discloses that the price is rounded up or down to the nearest whole dollar (i.e. an integer of 100) or to whole quarters, dimes, nickels, pennies, etc. (i.e. an integer of 25, 10, 5, 1, etc.). The disclosure that the price can be rounded up infers that the price is rounded to the lowest multiple of the integer that is greater than the price." Fourth Office Action, page 7, last paragraph.

However, as discussed in Section 1.4.1 above, Eleftheriou does not even *round a purchase price*. In addition, Eleftheriou does not *determine a rounding multiple based on the first item [not included in the at least one item]*. Eleftheriou likewise does not disclose that a *rounded price is determined based on the price and such a rounding multiple*. In Eleftheriou, rounding is always to a specific multiple. Col. 8, lines 24 - 38.

The Examiner has apparently ignored these claim limitations, since there is no specific assertion that the prior art discloses or suggests such limitations. The Examiner contends only that "it would have been obvious ... to round the purchase price up to the nearest multiple of the integer selected from the plurality of possible rounding integers." Fourth Office Action, page 7, last paragraph.

### 9.3.2. No Motivation to Combine or Modify the References

The deficiencies in the art of record with respect to a proper motivation to combine have been discussed with respect to Groups I and III.

Further, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) to *determine a rounding multiple based on a first item [not included in the at least one item]*. Similarly, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) that a *rounded price is determined based on the price and the rounding multiple*.

Since in the prior art the same purchase price (e.g. \$8.25) would always be rounded in the same way (e.g., to \$10), and there is no rounding in different ways, there would be no need to *Group IX*

*determine a rounded price based on the price and the rounding multiple [from the first item], nor would there be a need to determine a rounding multiple based on the first item.* In fact, the prior art does not recognize any advantage or motivation to *determine a rounded price based on anything associated with a first item not included in the at least one item*, specifically when such an item is *received from the customer*.

Finally, an embodiment where *the first item is received from a customer*, the customer herself helps determine how a rounded price is determined (since the rounded price is determined in part based on the rounding multiple determined from the first item). Such an embodiment is contrary to the Examiner's repeated assertions that the merchant (not the customer) chooses to round to particular multiples. See, e.g., Fourth Office Action, page 10 - page 13.

*GROUP X*

## 10. Group X

### SEPARATE ARGUMENT OF PATENTABILITY

Group X includes independent method claim 31. Independent claim 31 recites somewhat similar limitations to those of method claim 1 (discussed above in Group I), as discussed below.

Accordingly, arguments above with respect to Group I are likewise applicable to Group X - e.g., the rounded price still renders the claims statutory, and the deficiencies in the prior art remain. Moreover, additional arguments are provided below for the patentability of the claims of Group X.

#### 10.1. Independent Claims 31

Independent claim 31 is directed to a method in which a plurality of items is received from a customer. Each item has a bar code. The bar code on each of the plurality of items is scanned.

An integer from a plurality of integers is selected based on one of the scanned bar codes. A price of a subset of the plurality of items is determined. The subset does not include the item corresponding to the one of the scanned bar codes.

A rounded price is determined based on the price and the selected integer. The rounded price is the lowest multiple of the selected integer that is greater than the price.

The customer is charged the rounded price for the plurality of items, and payment of the rounded price is received from the customer.

#### 10.2. Advantages of Independent Claim 31

The embodiments of claim 31 provides several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above with respect to Group I, in the claims of Group X *a price of a subset of the plurality of items is determined, and the subset does not include the item corresponding to the one of the scanned bar codes.* The claimed methods thus provides that one item is "isolated" from the others, and is not used in determining the "price" of *GROUP X*

the remaining items. A rounded price, which the customer is charged for the items, is instead determined based (indirectly) on the "isolated" item. Thus, a rounded price may be determined from an item that is selected by, e.g., the customer or the merchant.

In an embodiment where the "isolated item" is selected by the customer, such items may be upsells, and such a customer-selected upsell is much more time efficient. Present Application, page 5, lines 16 - 20. Further, such a customer-selected upsell is advantageous in clearing old or aging inventory. Present Application, page 5, line 21 - page 6, line 2. Such a customer-selected upsell is also clearly more likely to be actually accepted and purchased by the customer, compared to another offer made to the customer.

In an embodiment where the "isolated item" is selected by the merchant, the determination of the rounded price may be done in various ways to meet a wide variety of business goals, as described in Section 1.2 above.

In addition to the advantages discussed above with respect to Group I, by *determining a rounded price based on the price and the selected integer and charging the customer the rounded price for the plurality of items*, a price may be rounded to accomplish many goals not suggested by the prior art, such as providing a customer an offer for an upsell in exchange for the customer paying a rounded price (e.g. only rounded to the next higher dollar). See, e.g., Present Application, page 2, line 19 – page 3, line 2. The price of the upsell is the difference between the purchase price and the rounded purchase price.

Such an offer is highly likely to be accepted. For example, the difference between the purchase price and the rounded purchase price may be small enough to represent a discount off of the normal retail price, yet still high enough to yield a profit for the merchant. Thus, the upsell may represent an incremental sale the merchant would not otherwise have made, and the incremental sale incurs no additional costs.

Further, by determining *a rounded price based on a rounding multiple* (e.g., rather than in a more complicated manner), the price can be rounded in a fairly straightforward and easily understood manner. If the manner of rounding is understood by the customer, the promotions which take advantage of the rounding may be more readily accepted by customers.

Further, because the embodiments of claim 31 involves *scanned bar codes*, efficient machine processing of data may be used. In addition, a cashier involved in such a transaction need not do anything different, since scanning bar codes of items would be part of the cashier's  
GROUP X

routine. Thus, the claimed embodiments may be performed without significant retraining of cashiers.

### 10.3. The Claims of Group X are Allowable Over the Cited References

#### 10.3.1. The References Do Not Disclose or Suggest All the Limitations of Any Claim

The deficiencies in the art of record with respect to *rounding based on a rounding code* (Group I) have likewise been discussed. The art of record is similarly deficient with respect to *determining a rounded price based on ... an integer selected based on one scanned bar code of a plurality of item*. In particular, the prior art does not disclose or suggest this way of determining a rounded price: (i) the prior art does not disclose that *an integer is selected based on one of the scanned bar codes (and thus on one item)*; (ii) the prior art does not disclose that *a rounded price is determined based on ... the selected integer*. These limitations are highly advantageous, as described above in Section 10.2.

The Examiner asserts that Eleftheriou "discloses that the price is rounded up or down to the nearest whole dollar (i.e. an integer of 100) or to whole quarters, dimes, nickels, pennies, etc. (i.e. an integer of 25, 10, 5, 1, etc.). The disclosure that the price can be rounded up infers that the price is rounded to the lowest multiple of the integer that is greater than the price." Fourth Office Action, page 7, last paragraph.

However, as discussed in Section 1.4.1 above, Eleftheriou does not even determine a *rounded purchase price*. In addition, Eleftheriou does not *select an integer .. based on one of the scanned bar codes*. Eleftheriou also does not *determine a rounded price based on the selected integer [which is in turn selected based on one of the scanned bar codes]*. In Eleftheriou, rounding is always to a specific multiple. Col. 8, lines 24 - 38.

Further, in Eleftheriou the bar code is used only to indicate "cost and other requisite information". Col. 5, lines 61 - 64. No other description or use of a bar code is disclosed or suggested by Eleftheriou or any other prior art of record.

The Examiner has apparently ignored the claim limitations of claim 31, discussed above, since there is no specific assertion that the prior art discloses or suggests such limitations. The *GROUP X*

Examiner contends only that "it would have been obvious ... to round the purchase price up to the nearest multiple of the integer selected from the plurality of possible rounding integers."  
Fourth Office Action, page 7, last paragraph.

### 10.3.2. No Motivation to Combine or Modify the References

The deficiencies in the art of record with respect to a proper motivation to combine have been discussed with respect to Groups I and III.

Further, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) to *select an integer from a plurality of integers based on one of the scanned bar codes*. Similarly, there is no hint or suggestion in the prior art (and the Examiner has not asserted otherwise) that a *rounded price is determined based on the price and the selected integer*.

Since in the prior art the same purchase price (e.g. \$8.25) would always be rounded in the same way (e.g., to \$10), and there is no rounding in different ways, there would be no need to *determine a rounded price based on the price and the selected integer* [from the first item], nor would there be a need to *determine a rounding multiple based on the first item*. In fact, the prior art does not recognize any advantage or motivation to *determine a rounded price based on anything associated with a scanned bar code*.

Finally, since *the plurality of items are received from a customer*, the customer herself helps determine how a rounded price is determined (since the rounded price is determined in part based on the integer, which is in turn determined from one of the scanned bar codes of the items).

Such an embodiment is contrary to the Examiner's repeated assertions that the merchant (not the customer) chooses to round to particular multiples. See, e.g., Fourth Office Action, page 10 - page 13.

GROUP X

## CONCLUSION

Thus, the Examiner's rejection of the pending claims are is improper at least because the all pending claims are directed to statutory subject matter. In addition, the references, alone or in combination, do not disclose or suggest all the limitations of any claim. In addition, in the obviousness rejections the Examiner has improperly combined the references because there is no adequate reasoning or support in the prior art for making the proposed combination. Therefore, Appellants respectfully request that the Examiner's rejections be reversed.

If any issues remain, or if there are any further suggestions for expediting allowance of the present application, please contact Dean Alderucci using the information provided below.

Appellants hereby request any extension of time that may be required to make this Appeal Brief timely. Please charge any fees that may be required for this paper, or credit any overpayment, to Deposit Account No. 50-0271.

Respectfully submitted,



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April 10, 2003  
Date

**APPENDIX A**  
**CLEAN COPY OF CLAIMS INVOLVED IN THE APPEAL**

1. A method comprising:  
  
receiving a rounding code of a plurality of different rounding codes; and  
  
rounding a purchase price based on the rounding code.
  
2. An apparatus comprising:  
  
a storage device; and  
  
a processor connected to the storage device,  
  
the storage device storing  
  
a program for controlling the processor; and  
  
the processor operative with the program to:  
  
receive a rounding code of a plurality of different rounding codes; and  
  
round a purchase price based on the rounding code.
  
3. A method comprising:  
  
receiving a rounding code, the rounding code having a corresponding rounding multiple  
of a plurality of different rounding multiples; and  
  
rounding a purchase price based on the rounding multiple.

CLEAN COPY OF CLAIMS INVOLVED IN THE APPEAL

4. An apparatus comprising:  
  
a storage device; and  
  
a processor connected to the storage device,  
  
the storage device storing  
  
a program for controlling the processor; and  
  
the processor operative with the program to:  
  
receive a rounding code, the rounding code having a corresponding rounding  
multiple of a plurality of different rounding multiples; and  
  
round a purchase price based on the rounding multiple.
  
5. A method comprising:  
  
receiving a rounding code;  
  
determining a rounding multiple of a plurality of different rounding multiples, the  
rounding multiple corresponding to the rounding code; and  
  
rounding a purchase price based on the rounding multiple.

6. An apparatus comprising:  
  
a storage device; and  
  
a processor connected to the storage device,  
  
the storage device storing  
  
a program for controlling the processor; and  
  
the processor operative with the program to:  
  
receive a rounding code;  
  
determine a rounding multiple of a plurality of different rounding multiples, the  
rounding multiple corresponding to the rounding code; and  
  
round a purchase price based on the rounding multiple.
7. A method comprising:  
  
receiving a plurality of rounding codes, each rounding code having a corresponding  
rounding multiple and fixed price;  
  
determining a purchase price; and  
  
rounding the purchase price based on the rounding codes.
8. The method of claim 7, in which the step of rounding comprises:  
  
adding at least one of the fixed prices to the purchase price, thereby generating an  
augmented purchase price; and  
  
rounding the augmented purchase price based on a rounding multiple.

9. The method of claim 7, in which the step of rounding comprises:  
rounding the purchase price based on a rounding multiple, thereby generating an augmented purchase price; and  
adding at least one of the fixed prices to the augmented purchase price.
10. The method of claim 7, in which the step of rounding comprises:  
selecting a rounding code, thereby defining a selected rounding code and a set of unselected rounding codes.
11. The method of claim 10, in which the step of rounding further comprises:  
adding the fixed price of each unselected rounding code to the purchase price, thereby generating an augmented purchase price; and  
rounding the augmented purchase price based on the rounding multiple of the selected rounding code.
12. The method of claim 10, in which the step of rounding further comprises:  
rounding the purchase price based on the rounding multiple of the selected rounding code, thereby generating an augmented price; and  
adding the fixed price of each unselected rounding code to the augmented price.
13. The method of claim 10, in which the step of selecting a rounding code comprises:  
selecting a rounding code having a rounding multiple that is not greater than the rounding multiple of each unselected rounding code.

CLEAN COPY OF CLAIMS INVOLVED IN THE APPEAL

14. The method of claim 10, in which the step of selecting a rounding code comprises:  
selecting a rounding code having a minimal rounding multiple.
15. The method of claim 7, in which the fixed price and the rounding multiple of each rounding code are equal.
16. An apparatus comprising:  
a storage device; and  
a processor connected to the storage device,  
the storage device storing  
a program for controlling the processor; and  
the processor operative with the program to:  
receive a plurality of rounding codes, each rounding code having a corresponding rounding multiple and fixed price;  
determine a purchase price; and  
round the purchase price based on the rounding codes.
17. The apparatus of claim 16, in which the processor is further operative with the program to:  
add at least one of the fixed prices to the purchase price, thereby generating an augmented purchase price; and  
round the augmented purchase price based on a rounding multiple.

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18. The apparatus of claim 16, in which the processor is further operative with the program to:

round the purchase price based on a rounding multiple, thereby generating an augmented purchase price; and

add at least one of the fixed prices to the augmented purchase price.

19. The apparatus of claim 16, in which the processor is further operative with the program to:

select a rounding code, thereby defining a selected rounding code and a set of unselected rounding codes.

20. The apparatus of claim 19, in which the processor is further operative with the program to:

add the fixed price of each unselected rounding code to the purchase price, thereby generating an augmented purchase price; and

round the augmented purchase price based on the rounding multiple of the selected rounding code.

21. The apparatus of claim 19, in which the processor is further operative with the program to:

round the purchase price based on the rounding multiple of the selected rounding code, thereby generating an augmented price; and

add the fixed price of each unselected rounding code to the augmented price.

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22. The apparatus of claim 19, in which the processor is further operative with the program to:

select a rounding code having a rounding multiple that is not greater than the rounding multiple of each unselected rounding code.

23. The apparatus of claim 19, in which the processor is further operative with the program to:

select a rounding code having a minimal rounding multiple.

24. The apparatus of claim 16, in which the fixed price and the rounding multiple of each rounding code are equal.

25. A method comprising:

determining a purchase price for a purchase including at least one item;  
receiving a rounding code from a first item not included in the purchase;  
determining a rounding multiple corresponding to the rounding code;  
rounding the purchase price based on the rounding multiple; and  
allowing an exchange of the at least one item and the first item for the rounded purchase price.

26. A method comprising:

determining a purchase price for a purchase including at least one item;  
receiving a rounding code from a first item not included in the purchase;  
determining a rounding multiple corresponding to the rounding code;  
rounding the purchase price based on the rounding multiple; and  
receiving the rounded purchase price in exchange for the at least one item and the first item.

27. A method comprising:

determining a purchase price for a purchase including at least one item;  
receiving a rounding code from a first item not included in the purchase;  
selecting a rounding multiple from a plurality of rounding multiples based on the received rounding code;  
rounding the purchase price based on the selected rounding multiple; and  
receiving the rounded purchase price in exchange for the at least one item and the first item.

28. A method comprising:
- receiving a signal indicative of at least one item from a customer;
  - determining a price for the at least one item;
  - receiving a signal indicative of a scanned bar code on a first item not included in the at least one item;
  - selecting an integer from a plurality of integers based on the scanned bar code, in which at least one of the plurality of integers is "1";
  - determining a rounded price based on the price and the selected integer, in which the rounded price is a lowest multiple of the selected integer that is greater than the price;
  - setting the rounded price as required payment for the at least one item and the first item;
  - and
  - registering the rounded price as being paid for by the customer.
29. A method comprising:
- receiving at least one item from a customer;
  - receiving a first item from a customer, in which the first item is not included in the at least one item;
  - determining a price for the at least one item;
  - determining a rounding multiple based on the first item;
  - determining a rounded price based on the price and the rounding multiple, in which the rounded price is a lowest multiple of the selected integer that is greater than the price;
  - charging the customer the rounded price for the at least one item and the first item; and
  - receiving payment of the rounded price from the customer.

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30. A method comprising:

receiving at least one item from a customer;

receiving a first item from a customer, in which the first item is not included in the at least one item;

determining a price for the at least one item;

scanning a bar code on the first item;

selecting an integer from a plurality of integers based on the scanned bar code, in which at least one of the plurality of integers is "1";

determining a rounded price based on the price and the selected integer, in which the rounded price is a lowest multiple of the selected integer that is greater than the price;

charging the customer the rounded price for the at least one item and the first item; and

receiving payment of the rounded price from the customer.

31. A method comprising:

receiving a plurality of items from a customer, each item having a bar code;

scanning the bar code on each of the plurality of items;

selecting an integer from a plurality of integers based on one of the scanned bar codes;

determining a price of a subset of the plurality of items, the subset not including the item corresponding to the one of the scanned bar codes;

determining a rounded price based on the price and the selected integer, in which the rounded price is a lowest multiple of the selected integer that is greater than the price;

charging the customer the rounded price for the plurality of items; and

receiving payment of the rounded price from the customer.

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**APPENDIX B**  
**CHART SHOWING CLAIM DEPENDENCIES**

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*CHART SHOWING CLAIM DEPENDENCIES*